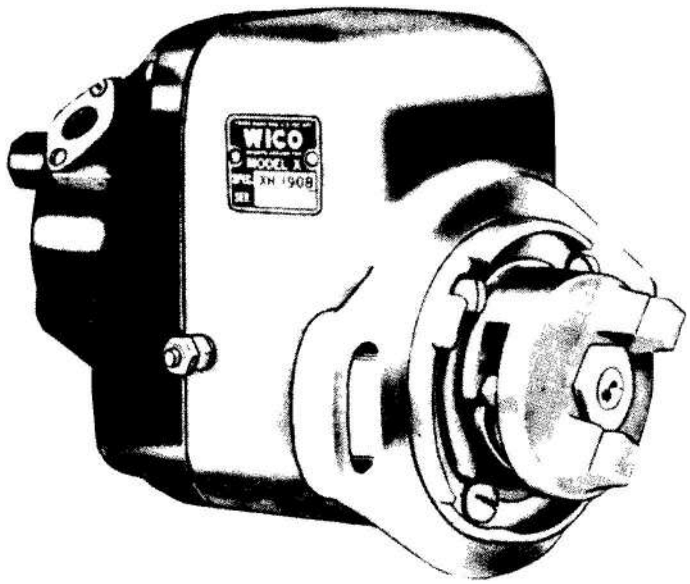
MODEL XH WICO MAGNETOS FOR CA TERPILLAR



SERVICE INSTRUCTIONS AND PARTS LIST

~WICO **SPECIAL PRODUCTS DIVISION** GLOBE-UNION INC_
WEST SPRINGFIELD, MASSACHUSETTS

File in XH Parts Secti~n of your Service Manual

I'<evi sed October 1. 1965

Form 5-509'

SERVICE INSTRUCTIONS & PARTS LIST

MODEL XH WICO MAGNETOS FOR CATERPILLAR

DISTRIBUTOR CAP OR COVER

T a remove the cap or cover loosen the screws which hold it in place. It is not necessary to completely remove these screws. When replacing the cap or cover make sure the gasket is in place.

DISTRIBUTOR ROTOR

There are two types of distributor rotor drives used for Caterpillar magnetos. One design f1as a beryllium copper retaining spring and is located and driven by a flat on the magneto rotor shaft. The other design has a taper and key drive and the d i stri butor rotor is secured to the shaft with a 114" screw and external tooth lockwasher.

The spring drive type arm can be removed by pulling straight off.

The taper and key type can be removed by wedging a screwdriver between the cam lobe and the arm after the *1/4"* retaining screw has been removed. When replacing the arm, make certain the woodruff key is in place and the retaining screw is tightened securely.

BREAKER POINTS

The breaker points should be adjusted to *.015"* when fully opened. To adjust the contacts, loosen the two clamp screws *5900* enough so that the contact plate can be moved. Insert the end of a small screw driver in the adjusting slot and open or close the contacts by moving the plate until the opening is .015" measuring with a feeler gauge of that thickness, tighten the two clamp screws.

To replace the contacts remove the breaker spring clamp screw *5431,* the breaker arm lock and washer 4210 and 3219, then lift the breaker arm from its pivot. Remove the al ign ing washer *5717* and the two fixed contact clamp screws *5900.* The breaker plate can then be removed.

If the contacts need replacing, it is recommended that both the fixed contact and the breaker arm be replaced at the same time, using a replacement breaker contact set.

After assembly the contacts should be adjusted as described above. The contacts should be kept clean at all times. Use WICO tool *5-5449* to adjust the al ignment of the centccts so that the surfaces meet squarely.

The pre-assembled contacts used in the latest design are pre-al igned at the factory.

CONDENSER

To remove the condenser, first di sconnect the condenser lead by removing the breaker arm spring screw 5431, then remove the two cpndenser clamp screws 5411, and the condenser clamp. When replacing the condenser, make sure it is properly placed and that the clamp screws are securely tightened.

When assembling the condenser in the latest design magneto be sure the grounding wire is properly located so the conden ser ca se wi II not cru sh the insulation and cause the magneto to short out.

COIL AND COIL CORE

The coil and coi I core must be removed from the magneto housing as a unit. After the di stributor cap and di stributor rotor have been removed, and the primary wire disconnected from the breaker arm spring terminal by removing screw 5431, take out the two coil core clamp screws 5411, and remove the clamps 5633. The coil and core can then be pulled from the housing. When replacing this group, make sure that the bare primary wire is connected under the core clamp screw 5411 and that the insulated wire is connected to the breaker arm spring terminal.

REMOVAL OF CORE FROM COIL

The coil is held tight on the core X5524 by a spring wedge. It will be necessary to press against the coil core with considerable force to remove it from the coi I. The coi I shou Id be supported in such a way as not to damage the coil when removing for replacement.

STOP DEVICES

The exploded view illustrates the manner in which they are assembled to the housing. In all cases the 11874 nylon washer, 3230 nuts and associated washers are outside of the magneto. The 9820 nylon washer and remaining parts are mounted inside the magneto. Each of these stop devices is available as a replacement unit. Each unit contains all of the parts necessary for completely replacing the stop device.

The latest design magneto has the ground terminal molded in the distributor cap.

MAGNETIC ROTOR ASSEMBLY

To remove the magnetic rotor assembly first remove the distributor cap and distributor rotor and pinion gear. The pinion gear may be pulled from the rotor shaft after screw 6466 is removed. Next remove the four impulse stop clamp screws 6465, after which the

MAGNETIC ROTOR ASSEMBLY (Cont.)

magnetic rotor assembly may be pulled from the main housing by holding the main housing in one hand and pull ing on the drive cup with the other.

When replacing the magnetic rotor assembly, make sure that the inside of the housing and rotor are free from dirt and chips, also that the impulse stops are on the correct side, and the top witness mark is in the correct position before tightening the four impulse stop clamp screws.

Before install ing the magnetic rotor assembly with the new style bearing cage and "O" ring, the "O" ring must be lubricated with green soap, or Hydraulic Brake fl u i d to eli m i nate the danger of shear i ng the "O" ring.

IMPULSE COUPLING (Impulse Coupling Lock)

The impulse lock nut is best removed by placing the magnetic rotor in a vise (use brass jaws) and tighten them lightly against the flat sides of the magnetic rotor. After securing the rotor, remove nut with a 3/4" socket WICO tool number 5-4704. If it is desired to remove the impulse lock nut without removing the magnetic rotor assembly from the housing, insert an impulse holding tool, WICO tool No.S10204, between the ear on the driven flange and an impulse stop clamp screw, and proceed as above.

XH-2522C has no impulse coupling unit. If oil slinger or drive parts need changing remove drive nut number 11784.

DRIVE CUP AND DRIVE SPRING

To remove the drive cup, after having removed the impulse lock nut, turn the drive cup in the direction of the proper magneta ratation until the trip arm latches against the impulse stop. Continue to turn the cup until the projections on the cup have cleared the projections on the driven flange. Without the friction of these parts against each other the cup can be pulled out far enough to allow it to unwind. A firm grip should be token on the cup to prevent possible injury to the hand. Then, pull the cup, with the spring still in it, off the shaft.

To remove the spring from the cup, it is merely necessary to work the spring out of the cup with a screw driver.

In replacing the drive spring, locate the spring over the cup so that the outer eye of the spring is over the slot provided on the inside wall of the cup. For a clockwise magneto the spring should be insta II ed so that the turn s sp i ra lin toward the inner eye in a clockwise direction. For a magneto of counter-clockwise direction, it should spiral inwards in a counter-clockwise direction. Next insert the outer eye of the spring as far as possible into the proper slot. Next, take the drive cup spacer 16-583 which contains the slot for the inner eye, insert a large screw driver in the center hole so it will bind, and the drive cup spacer can be turned with the screw driver acting as a handle. Insert the inner eye of the spring in the drive cup spacer slot and wind the spring around the spacer until the spirals close sufficiently to allow the spring to sl ide inside the drive cup. This method of winding the spring elimi-nates any possibility of distorting or scratching the spring surface. The spring may be more easi Iy inserted if the lugs of the drive cup are securely held in a vise.

To reassemble the drive cup and spring to the magneto, proceed as follows: Make certain that all parts are c lean and there is grease between the turns of the impulse drive spring. Next, pull the inner eye with one turn of the spring out of the cup a little way. Place the drive cup over the end of the magnetic rotor shaft, making sure the inner eye of the spring is in the notch provided in the drive cup spacer washer. Press the parts together, hold the impulse cup out far enough so that the projections on the drive cup clear the flange, and then give the cup a full turn as follows: make a half turn and allow the cup projections to lock against the driven flange, then, with a fresh hold on the drive cup, make the other half turn. When the cup is wound, press it firmly into place and apply a small amount of grease to the bearing surface of the impulse lock nut and replace.

DRIVEN FLANGE GROUP & TRIP ARMS

After having removed the impul se lock nut, drive cup, drive spring and various spacing washers the driven flange group may be removed. If the driven flange does not pull off easi Iy, remove the magnetic rotor assembly from the magneto housing, and press the flange off with an arbor press. To support the flange while pressing the shaft out, it is best to use a steel ring under the impulse stop group. If this method is used it will be necessary to install a new oil slinger 6204 when reassembling the magneto.

There are four different drive flange groups, two for each rotation. They are easily identified in the following manner. Hold the driven flange group with the trip arm pins facing you and turn it so that the two ears are horizontal. If a trip arm pin is now in the upper right-hand quadrant the driven flange is clockwise, but if a trip arm pin is in the upper left-

DRIVEN FLANGE GROUP & TRIP ARMS (Cont.)

hand quadrant, the driven flange is counter-clockwise. Driven flanges used on magnetos with spring loaded trip arms have trip arm pivots which are slotted.

Driven flange groups are furni shed without the trip arms. When replacing the driven flange group, make certain that it is pressed on to the shaft as far as it will go. When pressing the driven flange on to the magnetic rotor assembly, always support the rotor by placing a block etc., under the cam.

TRIP ARM

To remove the trip arms, c lamp the driven flange in a vise, push the point of a knife between the snap ring, A243X, and the trip arm pivot, near the opening of the snap ring. This will spring the snap ring out a little, and then by inserting a knife between the snap ring and pivot as far from the opening as possible, the ring may be pulled off. Now the trip arm, X179X may be removed. It is recommended that a new snap ring be used if the old one becomes damaged in the process of removal.

Magnetos equipped with trip arm springs do not have snap rings, and it is merely necessary to unhook the spring from the trip arm and I ift it off the end of the pivot.

An easy method for putting on a new snap ring is to take a socket wrench, or similar device, of a size slightly larger than the pivot, put the ring on the pivot and press down on the ring with the open end of the socket wrench.

IMPULSE STOP GROUP

The impul se stop group serves not only to hold the driven flange group and rotor stationary while the impulse is winding up, but also contains an oil seal which prevents the lubricating oil, used in the engine, and other foreign matter from enter-ing the magneto. The impulse stop groups can be used on magnetos of either rotation. For counter-clockwi se magnetos, the impul se stop lug should be on the lefthand side of the magneto, and conversely when used on magnetos of clockwi se rotation, the impul se stop lug should be on the right.hand side of the magneto as viewed from the drive end.

If a new oil seal is desired for the impulse stop group, it must be ordered separately by number 6199. A spring finger type oil seal will be found on some , magnetos, but when replacing them a regular oil seal 6199 should be used. Before removing the impulse stop plate be sure to note the position of the witness mark in relation to the timing marks in the magneto housing. (It might be wise to scribe your own mark before loosen ing screws.)

LAG ANGLE ADJUSTMENT

The proper lag for each magneto is important because it provides retarded spark for starting. For the most efficient operation care should be taken when the log angle adjustment is mode. If the precaution suggested in the paragraph under IMPULSE STOP GROUP is headed it will help to insure correct engine starting.

LUBRICATION

Model XH magnetos do not require oiling during operation. The drive end of the magnetic rotor is supported by a double sealed bearing which contains its own I ubricant. The com end of the rotor is supported by a porous bronze bushing impregnated with its own lubricant: If it becomes necessary to replace these ports, they may be ordered as a group or seperately. See Illustrations 416 or 429

It is important to seal the impulse spacer to the magnetic rotor shaft to keep eng ine oi I from enteri ng the magneto. Use Perfect Seal number 4 for best results.

ROTORS

The abi I ity of magnet steel to retain its magnetism is known as its coervive property. The magnet steel used in the XH model magnetic rotors has such an extremely high coercive value that it is practically impossible for these rotors to lose any appreciable amount of magneti sm under normal operating con-ditions. It is therefore not necessary to recharge these rotors.

MAIN HOUSING

CAUTION: Under no condition should the four screws holding the laminated cores in the main housing be removed. These cores are put on at the factory and finished to very close tolerance to maintain the proper air gap between the cores and the rotor. Do NOT try to replace the distributor rotor bridge on geared distributor housings. It is necessary to bore the distributor rotor pivot hole after the bridge is assembled to the housing to maintain close tolerance between the distributor rotor gear and the prm on gear. Therefore, when it becomes necessary to replace the distributor rotor bridge, the complete main housing must be rephced or returned to Wico to be rebuilt.

REPLACEMENT OF ROTOR BUSHING

In order to replace the bushing in the housing, it is necessary to use Wico rebushing tool 5-10035 to properly locate bushing with respect to the face of the breaker plate.

REPLACEMENT OF BREAKER ARM PIVOT PIN

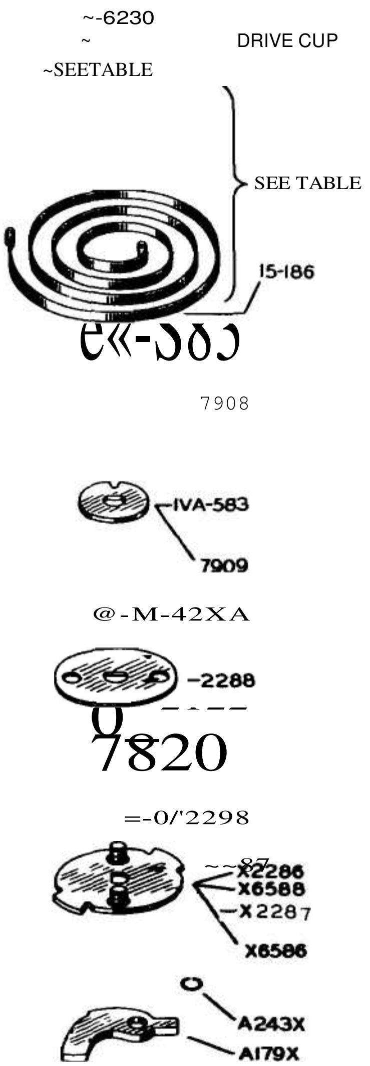
In order to replace the breaker arm pivot pin it is necessary to use Wico insertion tool number 5-11824. Take care not to enlarge the hole in the breaker plate when removing the old pin, and make sure that the new pin is perpendicular when pressing it in.

The latest designed housing does not have a breaker arm pivot pin as thi spin is part of the X12753 breaker assembly.

WARNING - - -

Under NO condition should a battery be connected in any way to a WICO magneto. In several magneto failures the trouble was found to be that someone had tried to boost the spark output by connecting a battery to the ground stud. If this is done it causes a direct short every time the points close, and thi s burns the temper out of the breaker arm spring and pits the points. When the points are open it overloads the primary of the coil and causes coil failure. Also by overloading the primary, it makes an electromagnet out of the coil and coil core and this discharges the magnetic rotor.

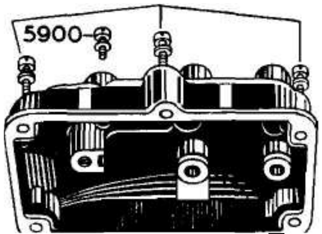
After servicing the magneto the output can be tested by using a wico magneto test plug part 5-14281. The 5-14281 test plug can be used on a test stand or after the magneto is mounted on the engine.



IMPULSE COUPUNG UNITS
SEE TABLE

IMPULSE COUPLING GROUP COMPONENTS						
IMPULSE COUPL. UNIT	DR. CUP & SPRING	DRIVE CUP	DRIVEN FLANGE GROUP	TRIP ARM SPRING	DR. CUP SPACING WASH. 1	DR. CUP SPACING WASH. 2
X6436		6429	X2287		16-583	IVA-583
X6437		6428	X2286		16-583	IVA-583
Xl1311	X 11995	9997	X6588	6587	16-583	IVA-583
X 12128	X12102	11756	X6586	7820	16-583	IVA-583
X 12165	X 11994	11769	X2286		16-583	IVA-583
X 12299	X 12301	12277	X6586	12298	7908	7909
X14234	X 14230	13844	X6586	7820	16-583	IVA-583
X16128	X16133	16130	X6586	12298	7908	7909

X13342-WITH RUBBER SEALING WASHERS
12735-WITHOUT RUBBER SEAL! NG



SEE TABLE

X6000 XI2162 6465 6204

5518

12765 165

12726

2 STOPS

13365

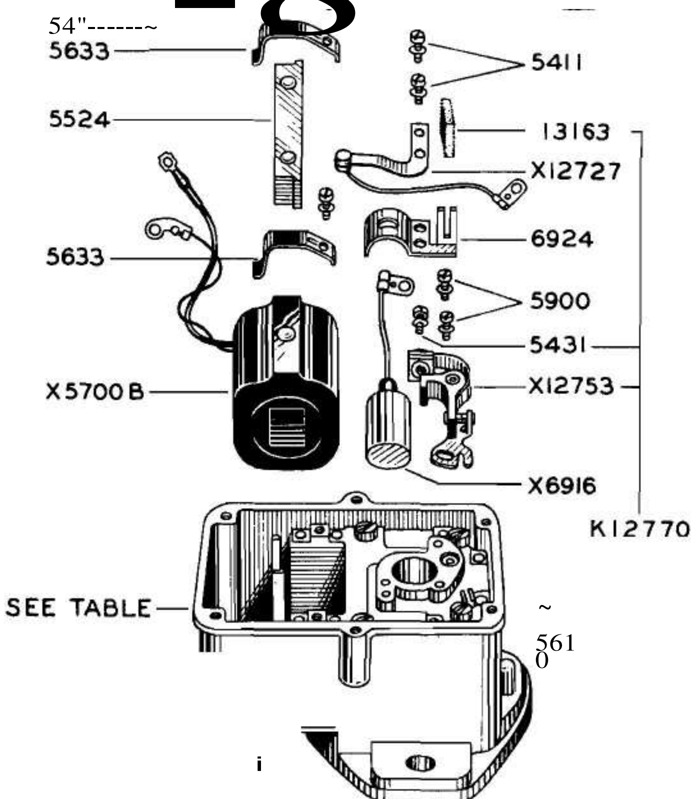
1 STOP

5534

SEE TABLE

54"

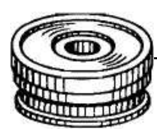
12766



561
0

5543

5250

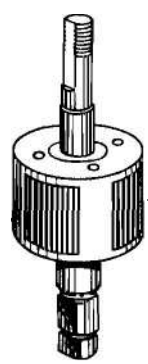


X12764

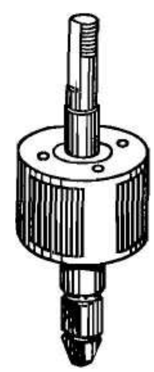
5516
LOCK RING
11568
BEARING
12763 BEARING
CAGE
12766
OILSEAL

5926

5520

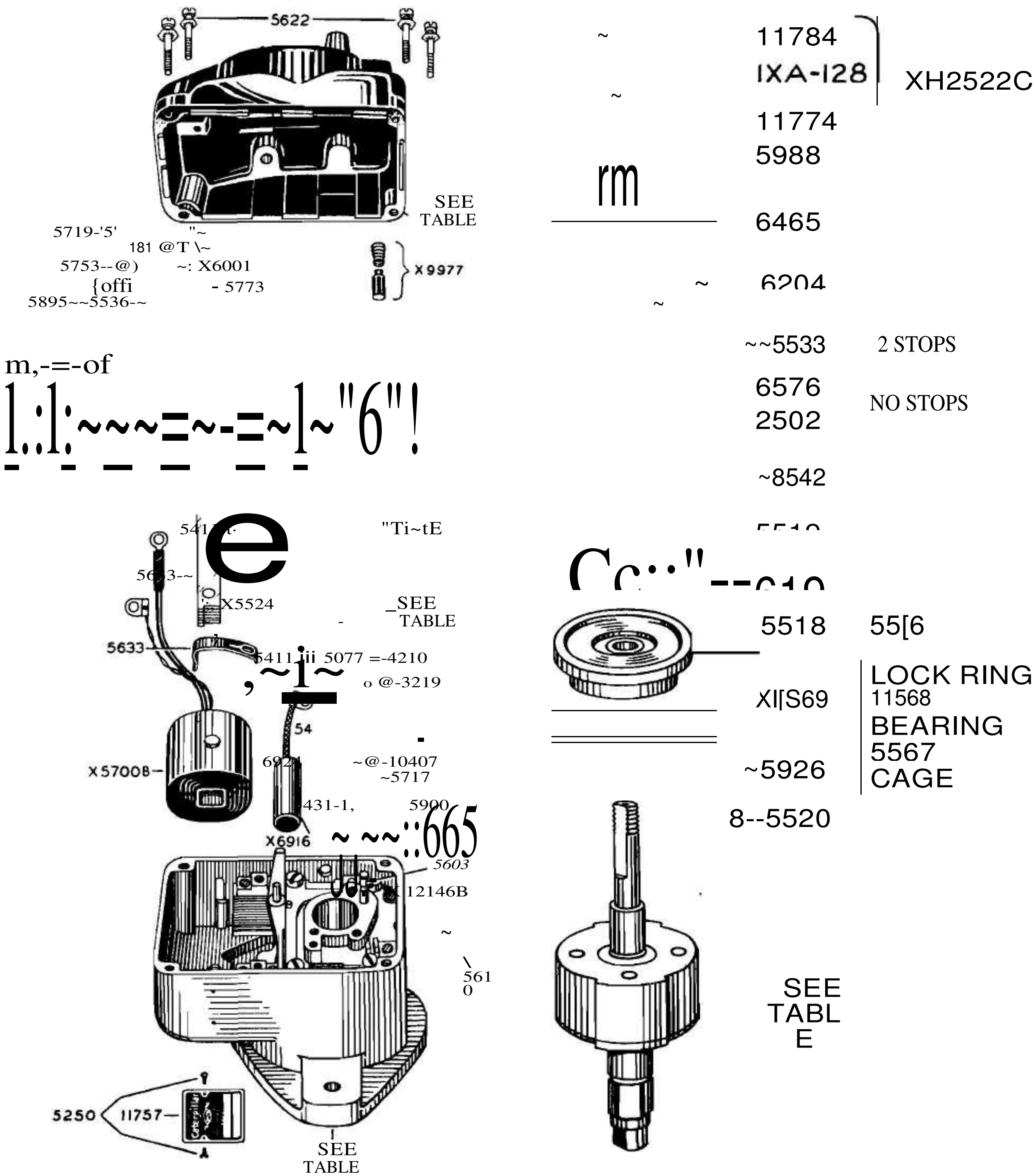


SEE TABLE



()-MI9X

13232


5622
SEE TABLE
5719
181
5753
X6001
5773
5895
5536
X9977
11784
IXA-128
XH2522C
11774
5988
6465
6204
5533
2 STOPS
6576
NO STOPS
2502
8542
5633
X5524
SEE TABLE
5411
5077
4210
3219
54
X5700B
10407
5717
5900
X6916
665
5603
12146B
5610
5250
11757
SEE TABLE
5518
LOCK RING
11568
BEARING
5567
CAGE
5926
5520
SEE TABLE

VARIABLE PARTS LIST

WICO SPEC	CAT SPEC.	TYPE	MTG.	LAG ANGLE	ROT.	OVERHAUL PACKAGE	CONTACT SET	CONDo	COIL
XH 1906		XHG-2	SF	32°	CCW	K9358	X5996	X5614	X5700C
*XH1907		XHG-2	HF		CCW	K9358	X5996	X5614	X5700C
XH 1908		XHG-2	HF	30°	CW	K9358	X5996	X5614	X5700C
XH2450	7H6866	XHG-2	HFVM	30°	CCW	K 11997B	K 12146B	X6916	X5700C
XH2450B	7H6866	XHG-2	HFVM	30°	CCW	K 11997B	K12146B	X6916	X5700C
XH2450'C	5M4071	XHG-2	HFVM	30°	CCW	K 11997B	K12146B	X6916	X5700C
XH2522	8H9921	XH-2	SFVM		CW	K 11997B	K 12146B	X6916	X5700C
XH2522B	8H9921	XH-2	SFVM		CW	K11997B	K 12146B	X6916	X5700C
XH2522C	5M2851	XH-2	SFVM		CW	K 11997B	K12146B	X6916	X5700C
XH2541C	5M6374	XH-2	HFUM	11°_ 14 °	CW	K 11997B	K 12146B	X6916	X5700C
XH2601	4M4314	XH-2	SF	15°	CW	K 11997B	K 12146B	X6916	X5700C
XH2631	5M2850	XH-2	HFUM	11°_14°	CW	K 11997B	K12146B	X6916	X5700C
:>XH2699 B	7M4700	XH-2	HFUM	11°_14°	CW	K 12771	K 12770	X6916	X5700C
XH2707B	7M5550	XH-2	SF	15°	CW	K 12771	K 12770	X6916	X5700C
XH2732	8M5152	XH-2	HFVM	11°_14°	CW	K 12771	K 12770	X6916	X5700C
XH2733	8M9145	XH-2	HFUM	11°_14°	CW	K 12771 ••	K 12770	X6916	X5700C
XH2734	8M9144	XH-2	SF	15°	CW	K 12771	K 12770	X6916	X5700C
• XH2745	8M7931	XH-2	HFUM	11°_14°	CW	K 12771	K12770	. X6916	X5700C
XH2799	3S2986	XH-2	HFVM	7)12°_ 10)120	CW	K 12771	K 12770	X6916	X5700C
XH2801	IS3351	XH-2	HFVM	11°_14°	CW	K 12771	K 12770	X6916	X5700C
XH2802	IS3350	XH-2	HFUM	11°_14°	CW	K 12771	K 12770	X6916	X5700C
XH2803	1 S3349 •	XH-2	SF	8)12°	CW	K 12771	K 12770	X6916	X5700C
XH2823	352987	XH-2	HFUM	7)12°_ 10)12°	CW	K 12771	K 12770	X6916	X5700C

* USE GEAR 6440

• ORIGINAL DIST. CAP WAS YELLOW

HFVM Horizontal flange, vertical mounting

HFUM Horizontal flange, upside down mounting

SFVM SAE flange, vertical mounting

SF 5AE flange

VARIABLE PARTS LIST

DIST CAP	DIST ROTOR	DIST. CAP GASKET	MAGNETIC ROTOR	MAIN HSG.	IMPULSE COUPLING	IMPULSE STOP	REPLACE. MAGNETO	WICC SPEC
X6526	X9564	5618	Y5758 .	X6195	X6436	X5549		XH 1906
X5776	X9564	5618	Y5946	X7153				XH 19078
X5776	X9564	5618	Y5944	X7153	X6437	X8543		XH1908
X9975	X9974B	11838B	Y8904	X 11231 .	X 11311	X8595		XH2450
X9975	X9974B	11838B	Y 8904	X 11231	XI1311	X8595		XH2450B
X9975	X9974B	11838B	Y8904	X 11231	X 11311	X8595		[illegible]
X13884	X 11490C	11839B	Y 11495B	X 11766				XH2522
X13884	X 11490C	11839B	Y11495B	X 11766				XH2522B
X 13884	X 11490C	11839B	Y 11495B	X 11766				XH2522C
XI1768B	X 11490C	11839B	HY 11758B	XII778B	X 12165	X5550	XH2631	XH2541C
X 11533	X 11490C	11839B	Y 12090	X 11766	X 12128	X5549	XH2707B	XH2601
XII771	X 11490C	11839B	Y 12270B	X 11779	X 12299	X5550	XH2699B	XH2631
X12757B	X 11490C	12726	Y 12270B	X12759	X 12299	X5550	XH2733	XH2699
X 12877B	X 11490C	12726	Y 12090	X 12881	X 12128	X5549	XH2734	XH2707
X13273	Y13215	12726	Y 13199	X 13654	X 12299	X5550		XH2732
X 13359	Y13215	~ .12726	Y 13325	X 12759	X 12299	X5550		XH2733
X 13322	Y13215	12726	Y 13220	X 12881	X12128	X5549		XH2734
X12757B	X 11490C	12726	Y 12270B	X12759	X 12299	X5550	XH2699B	XH2745+
X14231	Y13215	12726	Y 13199	X 13654	X16128	X5550		XH2799
X14231	Y 13215	12726	Y 13199	X 13654	X 12299	X5550	XH2799	XH2801
X14233	Y13215	12726	Y 13325	X 12759	X12299	X5550	XH2823	XH2802
X14232	Y 13215	12726	Y 13220	X12881	X14234	X5549		XH2803
X14233	Y13215	12726	Y13325	X 12759	X 16128	X5550		XH2823

* Rotor Y8904 (Alnico VI) will replace Y5946.

** Rotor Y12270B (Alnico VI) will replace YI1758 when used with drive cup and spring X12301.

COIL TEST DATA

Graham Model 51 Tester

Model No.	Max. Secondary	Max. Primary	Coil Index	Min. Coil Test	Max. Gap
X5700B	9000	1.2	80	28	90
X5700C	8500	1.5	50	18	70

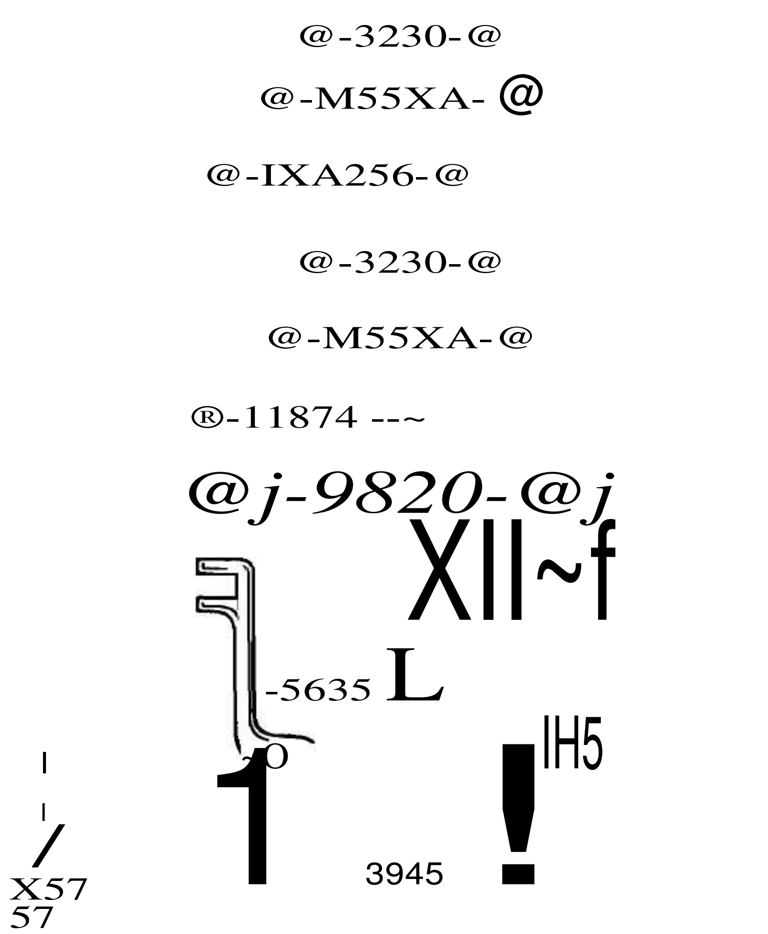
Wico Model MA-60 Tester

X5700B & X5700C

OPERATING AMPERAGE	SECONDARY CONTINUITY
1.7 0	40 - 60

CONDENSER CAPACITIES

X5614	Condenser	.16 - .20	W.icrofarads
X6916	Condenser	.30 - .34	Microfarads



GROUND CONNECTION UN IT

XH2450C
X5654
XH2522C
XH2601

XII820 {XH
2541 C
XH263
1

1 NEW WICO MAGNETOS FOR CATERPILLAR

NEW UNITS			REPLACES		APPLICATION	
Wico No.	Cat. No.	Mounting	Cat No.	Am. Bosch No.	Tractor	Engine
XH-2836	4S6471	HFYM	9H4492	MJK 4/2 360 D47	02 04 03000 04400	– – –
XH-2837	456468	SF	9H4474	MJK 4/2 180 D311 (K2311Y)	07 08 07700 08800 08800M 01100 013000 013000M	T75 T69 – E45 E56 – E43 E50
XH-2838	4S6469	HFYM	9H4477	MJ K 4/2 360 D408 (K2408Z)	04600 04600M 0318 048 05 06	E40 E54 E75 T76 T77
XH-2839	4S6470	HFYM	9H4479	MJK 4/2 360 D410 (K2410)	0318 0318M 06 06	E75 E76 T92 T93
XH-2842	456473	HB	9H4505	MJK 4/2 180 Dl07 (K217Y)	01300	–
XH-2843	4S6474	HBUM	9H4506	MJK 4/2 180 Dl09 (K219Y)	0211 06600 07700 08000 01100 01300 06 07 08 040 050 075 *135*	– – – – – – – – – – – – –
XH-2845	456472	SF	9H4486	M_IK 4D 313 (K4313) (H4313)	07 08 08800 01300	– – –

HFVM Horizontal flange, vert. mount
HBUM High base, upside down mount

HB High base SF
SAE flange

Add to S-509 Booklet in XH Section of your WICO Service Manual

TABLE OF VARIABLE PARTS

WICO MAGN ETO NO.	XH-2836	XH-2837	XH-2838	XH-2839	XH-2842	XH-2843	XH-2845
CATERPILLAR 5PEC	456471	456468	456469	456470	456473	456474	456472
TYPE	XHG-2	XHG-2	XHG-2	XHG-2	XHG-2	XHG-2	XHG-4
MOUNTING	HFVM	5F	HFVM	HFVM	HB	HBUM	5F
LAG ANGLE	./	30^0	30^0	30^0	30^0	30^0	30^0
ROTATION	CCW	CCW	CW	CW	CCW	CCW	CCW
OVERHAUL KIT	KI1997B	K11997B	KI1997B	K11997B	K 11997B	K11997B	K11997B
CONTACT SET	K12146B	K12146B	K12146B	K 12146B	K12146B	K12146B	K12146B
CONDENSER	X6916	X6916	X6916	X6916	X6916	X6916	X6916
COIL	X5700C	X5700C	X5700C	X5700C	X5700C	X5700C	X5700C
DIST. CAP	X 16538	X16474	X 16538	X 16538	X16474	X16474	X 16541
DIST. ROTOR	X9974B	X9974B	X16479	X16479	X9974B	X9974B	X9974B
DIST. CAP GASKET	11838B	11838B	11838B	11838B	11838B	11838B	11838B
MAGNETIC ROTOR	Y16461	Y6912	Y8748	Y16484	Y6912	Y6912	Y6912
MAIN HOUSING	X16499	X 16497	X16503	X16518	X 16528	X16540	X 16497
IMPULSE COUPLING	/	X16500	X16504	X16516	X16530	X16530	X16500
IMPULSE STOP	/	X5549	X8595	X8595	X5549	X5549	X5549

IMPULSE COUPLING GROUP COMPONENTS

Impulse Coupl Unit	Drive Cup & Spring	Drive Cup	Driven Flange Group	Trip Arm Spring	Drive Cup Spacing Washer 1	Drive Cup Spacing Washer 2
16500	X16495	16466	X7171	6587	16-583	IVA-583
16504	X16501	6428	X16520	7820	16-583	IV A-583
16516	X16515	16466	X 16533	7820	16-583	IVA-583
16530	X 16525	16485	X7171	6587	16-583	IVA-583

See Page 5 for picture of assembly procedure. ~:"0

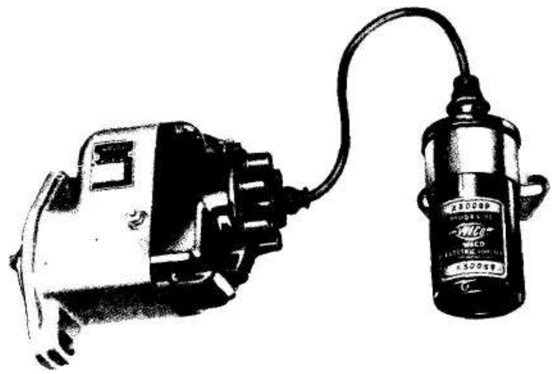
PIPI"O~BI] 'GNITION SINCE I!IV

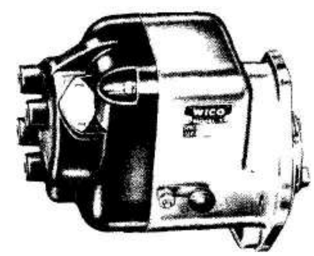
Ci*+.~ **WICO DIVISION** GLOBE.UNION INC.
WEST SPRINGFIELD, MASSACHUSETTS

SERVICE INSTRUCTIONS AND PARTS LISTS

WICO MAGNETO MODELS

XH, XHD & XHE





Code for Type of Mounting

LB Low Base SF S.A.E. Flange
HB High Base WF Small Flange
HF Horizontal Flange VM Vertical Mount
OF Double Slotted Flange

+ Indicates part not available from factory.

For Caterpillar Installations, See S-509

WICO DIVISION GLOBS-UNION INC. WEST SPRINGFIELD, MASSACHUSETTS, U.S.A.
"DEPENDABLE IGNITION SINCI lair'

lI'rinted in U. S. A. Form S-421 Revised 1/15/66

SERVICE INSTRUCTIONS

MODEL XH AND XHD WICO MAGNETOS

DISTRIBUTOR CAP OR COVER

To remove the cap or cover, loosen the screws 5622 which hold it in place. It is not necessary to completely remove these screws. When replacing the cap or cover make sure the gasket is in place. Check to make certain the distributor arm does not hit the inserts in the cap.

DISTRIBUTOR ARM

Aftel" the di stributor cap has been removed the distributor arm may be pulled off the shaft or bridge. When replacing the geared type arm, make sure the timing marks on the arm and pinion gear are in line.

BREAKER POINTS

Breaker points should be adjusted to .015" measuring with a feeler gauge of that thickness, tighten the two clamp screws.

To replace the contacts, remove the breaker spring clamp screw 5431, the breaker arm lock, and washer 4210 and 3219, then lift the breaker arm from it's pivot. Remove the aligning washer 5717 and the two fixed contact clamp strews 5900. Then the breaker plate can be removed.

If the contacts need replacing, it is recommended that both the fixed contact and the breaker arm be replaced at the same time, using a replacement breaker contact set.

After assembly, contacts should be adjusted as described above. The contacts should be kept clean at all times. Lacquer thinner is an ideal cleaner for this purpose. Use WICO tool S-5449 to adjust the alignment of the contacts so that the surfaces meet squarely.

CONDENSER

To remove the condenser, first disconnect the condenser lead by removing the breaker arm spring screw 5431, then remove the two condenser clamp screws 5411, and the condenser clamp. When replacing the condenser, make sure it is properly placed and that the clamp screws are securely tightened.

Condenser Copacities

Condenser	Magneto	Read ing / Microfarads
X5614	XH	.16-.20
X6916	XH	.30-.34
X11818	D XHE	.58-.62

COIL AND COIL CORE

The coi I and coi I core must be removed from the magneto housing as a unit. After the distributor, cap and d i stri butor arm have been removed, and the primary wire disconnected from the breaker arm spriNg terminal by removing screw 5431, take out the two coil core clamp screws 5411, and remove the clamp s 5633. The coi I and core can then be pulled from the housing. When replacing this group, make sure that the bare primary wire is connected under the coil clamp screw and that the insulated wire is conn ec+ed to the breaker arm spring terminal.

COIL TESTING

Coil testing should be done according to the directions furnished by the manufacturer of the particular tester you are using.

GRAHAM TESTER MODEL 51 WICO MA-60

X5700	7000	1.2	60	24	65	1. 70	40-60
X5700B	9000	1.2	80	2	90	1. 70	40-60
X5700C	8500	1.5	50	8	70	1. 70	40-60
X6664	7000	. 8	50	11	75	2.30(a)	
X6762	7000	.7	60	18	55	2.50	40-60
X6936	6500	1.2	50	24	60	1.75	
X7585	6500	1.0	45	14	65	2.30	
X 7744	7000	1.2	60	24	65	1.70	
X7886	7000	.7	60	18	55	2.20	30-S0
X7895	7000	.8	50	11	75	2.60	45-65
X8545	7000	. 7	60	18	60	2.00	40-60
X8964	7000**	1.0	60	17	65	2.00	
X 11600	9000	1. 2	80	29	90	1.9	40-60
X 12609	8000	1. 1	55	29	55		
X12810	20***	1.6	50	19	50*		
X30089B	7500	2.9	50	27	55	1. 1	40-50

*Connect one secondary terminal to primary for this test **Between two secondary terminals-when making gap test, ground ane secandary terminal.

REMOVAL OF COIL FROM CORE

The coi lis held tight on the core X5524 by a spring wedge. It will be necessary to press against the coil core with considerable force to remove it from the coi I. The coi I s shou ld be supported in such a way that there is no danger of the primary of of the coi I being pushed out of the secondary.

STOP DEVICES

There are three di stinct types of stop devices for XH and XHD magnetos, all of which serve the same fundamental purpose, that of rendering the magneto inoperative by short circuiting the primary circuit, thus stopping the engine. The illustration on page 7 shows these three different types of stop devices and distinctly illustrates the way in which they are assembled to the housing. In all cases the two small fibre washers, M34X, are inserted into the the hole in the side of the main housing. All parts below the two M34X or 9820 washers are assembled on the inside of the rncqneto, All parts above the M34X or 11874 washers are assembled on the outside of the magneto. Each of these stop devices is available as a replacement kit. Each kit contains all of the parts necessary for completely replacing the stop device of the type. If the stop device is on the left side of the magneto, as viewed from the drive end, use ground connector 5635; if the stop device is on right side, use ground lead group X5747

MAGNETIC ROTOR A55EMBL Y

To remove the magnetic rotor assembly, first remove the dl stri butor cap and di stributor arm & pinion gear. The pinion gear may be pulled from the rotor shaft after screw 6466 is removed. Next remove the four impulse stop clamp screws 6465, then the magnetic rotor assembly may be pulled from the main housing by holding the main housing in one hand and pulling on the drive cup with the other hand

When replacing the magnetic rotor assembly, make sure that the inside of housing and rotor are free from dirt or chips, also that the impulse stops are on the correct side, and the top witness mark is in the correct position before tightening the four impulse stop clamp screws.

IMPUL5E COUPLING (Impulse Coupling Lock)

The impulse lock nut is best removed by placing the magnetic rotor in a vise (use brass jaws) and tighten them I ightly against the flat side of the magnetic rotor. After securing the rotor, remove nut with a 3/4" socket WICO tool number 5-4704, if the nut has a hex-head. On gear driven magnetos, remove snap ring 6424 and thrust washer 6425, then after removing the drive cup, the impulse coupling lock nut, 6412 and 6414, can be removed with a spanner wrench, WICO tool number 5-9961. If you desire to remove the impulse lock nut without removing the magnetic rotor assembly from the housing, insert an impulse holding tool, WICO too number 5-10204, between the ear on the driven flange and an impul se stop clamp screw, and proceed as above.

There are two other impul se lock nuts. They are 6230, which has a fine thread (3/8-24) and no. 16-491C, which has a coarse thread (3/8-16). One or the other of these nuts are used on all XH and XHD type magnetos that are not gear driven.

DRIVE CUP AND DRIVE SPRING

To remove the drive cup, after having removed the impul se lock nut, in case of magnetos that are not gear driven as explained above, or remove snap ring 6424 on gear driven magnetos, turn the drive cup in the direction of the proper magneto rotation until the trip arm latches against the impulse stop. Ccnrlnue to turn the cup until the projections on the cup have cleared the projections on driven flange. Without the friction of these parts against each other the cup can be pulled out far enough to allow it to unwind. A firm grip should be taken on the cup to prevent possible injury to the hand. Then, pull the cup with the spring still in it, off the shaft.

To remove the spring from the cup, it is only necessary to work the spring out of the cup with a screw dr i ver.

In replacing drive spring, locate the spring over the cup so that the outer eye of the spring is over the slot provided on the inside wall of the cup. For a clockwise magneto the spring should be installed so that the turns spiral in toward the inner eye in a clockwise direction. For a magneto of counter clockwise direction, it should spiral inward in a counter clockwi se direction. Next insert the outer eye of the spring as far as possible into the proper slot. Next take the drive cup spacer 16-583 which contains the slot for the inner eye, insert a large screw driver in the center hole so it will bind and the drive cup spacer can be turned with the screw driver acting as a handle. Insert the inner eye of the spring in the drive cup spacer slot and wind the spring around the spacer until the spirals close sufficiently to allow the spring to slide inside the drive cUP. Thi s method of windina the spring eliminates any possibility of distortingor scratching the spring surface. The spring may be more easily inserted if the lugs of the drive cup are securely held in a vise.

The model XH and XHD drive cups can be used interchangeably on mcqnetos of clockwise or counter c I ockwi se rotati on.

To reassemble the drive cup and spring to the XH magneto, proceed as follows: The impulse lock nut has to be replaced first on gear driven magnetos only. Then make certain that all parts are clean and there is grease between the turn s of the impul se drive spring. Next, pull the inner eye with one turn of the spring out of the cup a little way. Place the drive cup over the end of the magnetic rotor shaft mak i ng sure the inner eye of the spri ng is in notch provided in the drive cup spacer washer. Press the parts together, ho I d the i mpu I se cup out far enough so that the projections on the drive cup clear the flange, and then give the cup a full turn as follows: make a half turn and allow the cup projections to lock against the driven flange, then, with a fresh hold on the drive cup, make the other half turn. On XHD magnetos using 7908 and 7909 drive cup spacing washers it is necessary to wind the cup an extra half turn. When the cup is wound, press it firmly into place and apply a small amount of grease to the bearing surface of the impul se lock nut.

DRIVE CUP & SPRING (CONT.)

XHD magnetos before serial number 646915 were built with 16-583 and IVA-583 drive cup spacing washers (diameter 1 inch) which only allow one full turn of impulse spring windup. Magnetos built after serial number 646914 have 7908 and 7909 spacing washers (diameter 7/8 inch) which allow one and a half turns of windup. This eliminates impulse flutter when the magneto is run at slow speeds just out of impulse. Therefore, it is recommended that on early magnetos the spacing washers be replaced with 7809 and 7909 washers, and then install drive cup as outl ined below.

ADJUSTABLE DRIVE CUP

Mounted XH base mounted specifications XH-19, XH-20, XH-22, XH-23, and XH-169 have an al;ustable drive cup, X2084, which enables the lug angle on the drive cup to be set at any degree when the magneto is at advanced spark. The adjustment is made by removing the two coupl ing nuts and

ment is made by remov i ng the two coup ling ad j u ster nuts and setting the lug plate in the desired position.

Several specifications of the model XH and XHD flange mounted magnetos have our new style adjustable drive cup (see illustration page 9). To adjust the lug angle, loosen the two number 10 set screws, and loosen the lock nut two complete turns using Wico tool number S-10164. It may be necessary to hold the magneto rotor shaft from turning by inserting tool No. S-10204 between the driven flange and a stop plate clamp screw. Push the lock nut down unti I the lug pLa.te can be turned. The lug plates are marked for easy setting. Line up the corr rect setting with the line on the cup flange, tighten the lock nut as tight as possible and tighten the set screws. It is recommended that the set screws be staked. It is not necessary to loosen the impulse lock nut to make the above adjustment.

Occasionally these adjustable cups can be used on magnetos of other specifications to fit unusual engine applications.

TRIP ARM

To remove the trip arms, clamp the driven flange in a vise, push the point of a knife between the snap ring, A243X, and the trip arm pivot, near the opening of the snap ring. This will spring the snap ring out a little, and then by inserting a knife between the snap ring and pivot as far from the opening as possible, the ring may be pulled off. Now the trip arm, A 179X, may be removed. It is recommended that a new snap ring be used if the old one becomes damaged in the process of removal.

Magnetos equipped with trip arm springs do not have snap rings, and it is merely necessary to unhook the spring from the trip arm and I ift it off the end of pivot.

TRIP ARM (CONT.)

An easy method of putting on a new snap ring is to take a socket wrench, or similar device, of a size slightly larger than the pivot, put the ring on the pivot and press down on the ring with the open end of the socket wrench.

IMPULSE STOP GROUP

The impulse stop group serves not only to hold the driven flange group and rotor stationary while the impulse is winding up, but also contains an oil seal which prevents the lubricating oil, used in the engine, or other foreign matter from entering the magneto. The impulse stop groups can be used on magnetos of either rotation. For counter clockwi se magnetos, the impul se stop lug should be on the left hand side of the magneto and conversely when used on magnetos of clockwise rotation, the impulse stop lug should be on the right hand side of the magneto as viewed from the drive end.

The standard X5549 i mpu I se stop group is used on most magnetos. The X5550 group wi j·h two stop lugs is used on four cylinder magnetos in which the di stributor is not geared, such as XH 1343. The X6578 group is u sed where a short lug is necessary due to lack of clearance on the engine as on XH1059. The bearing retaining group X6603 is used on magnetos which do not incorporate an impulse coupling unit.

If a new oil seal is desired for the impulse stop group, it must be ordered seperately by number 6199. A spring finger type oil seal will be found on some magnetos. but when replacing them a regular oil seal 6199 should be used.

LAG ANGLE ADJUSTMENT

After the complete magnetic rotor assembly has been reassembled in the housing, it is necessary to adjust the impulse lag angle, which provides retarded spark for starting. On one, two, and four cylinder magnetos, any impulse range from 50 to 42^0 may be found On 6 cyl inder magnetos, the range is 50 to *52Y2°*. The position of the impulse stop group determines the lag angle of the magnetos.

To set the lag angle, loosen the four impulse stop clamp screws at the outer edge of the stop group and set as follows: the impulse stop Qlate has stamped on it's face, two witness marks 180^0 apart, one used for c lockwi se and the other for counter c lockwi se magnetos. These marks serve to register against corresponding marks, 50 apart, on the main housing, acting as a guide to the amount of rotation of the stop plate during the adjustment of the lag angle. When either the clockwise or counter clockwise witness mark on the impu I se stop group is even with the center mark on the main housing, an impulse range of 13^0 is obtained, with the following exception, on 6 cylinder magnetos range wil] be 33^0. On XH 1042 magneto s wi th a 6274 dri ve cup, it wi l l be 3^0. The rotation of the stop plate in the same direction as the rotation of the magneto increases the impulse range by the amount of it's rotation. Thus,

LAG ANGLE ADJUSTMENT (CONT.)

since the marks on the, main housing are 50 apart, turning the stop plate one mark in the direction of magneto rotation from the center mark will increase the range *50.* Turning stop plate one mark in the opposite direction to magneto rotation wi II decrease the range 50. These variences of range are only approximate and magneto shou Id be tested on a rotary gq:l test stand and readjusted to accurately give range desired. After this adjustment has been made, be sure to tighten impulse stop group clamp screws 6465.

The above instructions for setting lag angle applies to all model magnetos except XH1343 which is used by Wi sconsin Motors Corporation. To set the lag angle on XH1343, have the impulse stop lugs to your right, line up the witness mark on the impulse stop group with the timing mark on the housing - that is, second from the top of magneto - on a counter clockwise direction. This will give approximately 30^0 lag.

The proper lag angle for each specific magneto may be found in the table of variable parts. It is very important that the lag ang I e be correctl y ad j u sted to the value given in these tables to insure the most efficient performance of the engine for which the magneto is intended.

LUBRICATION

The XH and XHD magnetos do not require oiling. The drive end of the magnetic rotor is supported by a double sheilded bearing, part 5517; it may be ordered with the bearing cage and snap ring by part number X5521. The cam end of the magnetic rotor is supported by a porus bronze bushing,5610, that is oil impregnated.

On flange mounted models, it is important to seal the i mpu I se spacer to the i mpu I se spacer to the magneti c rotor shaft to keep engine oi I from entering the magneto. Use Perfect Seal No.4 for best results.

ROTORS

The ability of magnet steel to retain it's magnetism is known as its coercive property. Magnet steel used in model XH and XHD rotors has such extremely high coercive value that it is practically impossible for these rotors to lose any appreciable amount of magnetism under any conditions. It is therefore not necessary to recharge these rotors

The table of variable parts shows the correct rotor for each specification magneto. The correct part number of each rotor is al so stamped on the rotor at the factory, therefore, making identification very easy.

MAIN HOUSING

CAUTION: Under no condition should the four screws holding the laminated cores in the main housing be removed. These cores are put on at the factory and finished to a very close tolerance to maintain the proper air gap between the cores and rotor. Do NOT try to replace the distributor arm bridge on geared distributor housing. It is necessary to bore the distributor arm pivot hole after the bridge is assembled to housing to maintain close tolerance between the di stributor arm gear and the pinion gear. Therefore, when it becomes necessary to replace the distributor arm bridge, the complete main housing must be replaced or returned to Wico to be rebuilt. Used main housing may be returned to the factory for rebu i I ding, tran sportati on both way s paid by the account. A new distributor arm bridge and pivot, new breaker arm pivot, and new bushing will be installed for a charge of $4.50 list, regular discounts will apply. No main housing will be reworked if aluminum casting, mounting hole threads, or cores, are worn or damaged. Housings received in the above condition will be scrapped. The Wico factory should be advised by the account at the time of shipment. The table of variable parts lists the correct main housing for each speci fi cati on magneto.

REPLACEMENT OF ROTOR BUSHING

In order to replace the bushing in the housing, it is necessary to use Wico rebushing tool S-10035 to properly locate bushing with respect to face of the breaker plate.

DUST COVER

If the magneto is equipped with a dust *cover,* it may be removed by removing the screw 5411. If cork. gasket 6693 shows signs of wear, replace it.

WARNING

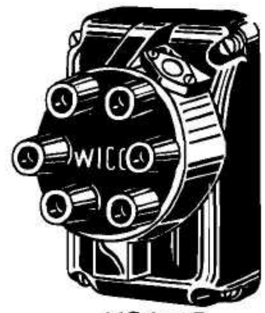
N EV E R connect a battery in any way to a WI CO magneto. In several magneto failures the trouble was found to be that someone had tried to boost the spark output by connecting a battery to the ground stud. If this is done, it will cause a direct short every time the poi nts close. Th is burns the temper out of the breaker arm spring and pits the points. When the points are open it overloads the primary of the coil and causes' coil failure. Also by overloading the primary, it makes an electromagnet out of the coil and coil core and this discharges the magnetic rotor.

,OYERS AND DISTRIBUTOR CAP LlNITS


X565
3


X7064


X5777


X5897
X9172 (XHD-2358)


X5776-X9532
(XHD-2263 & XHD-2289)


X5770


X5651

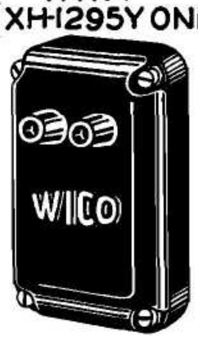

X 7114
(XH-1295Y ONLY)

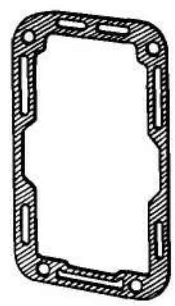

X5704


608
1

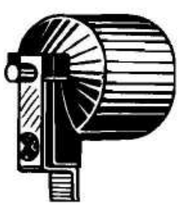

X 6533
)(9213 (XHD-2192B)


X6S26
X9348 (XH-2302)


X712
3


X5618

DISTRIBUTOR ARMS AND PINION GEARS


)(5531 (XH-2&4)


X5617
XH2 (J. DEERE)


* X9564 (XHG-2 & 4)
X9344 (XH-2302)


*6865


X5787
XHG6


5775

@

-When replacing the distributor ann or gear on XHG 2 & ~ magnetos under serial jlj3 I 3897, use Kit K9619. -

STOP DEVICES

FOR MODEL XH

Number at bottom of each line is number of replacement kit which includes all of the parts shown in the line above.

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X5632

@-3230

@--M-55XA

@--,XA-256

®--3230

@--M-55XA

®

~M-35X

@)

®~-34X

REPLACE BY

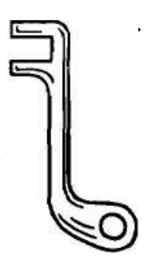
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X5757

3945

Standard Ground Connection Kit K-6448

~ M-95X

1992B

~ A-f70X

§ 16-369

® 1991

@ M-33X

@ M-35X

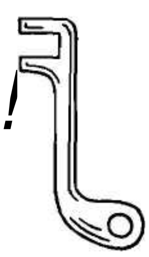
@>M-34X

e

~

3539

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5635

rnr-~

X575
7

4631

Wisconsin Type Ground Connection Kit K-6449

® 3230

® IXA-256

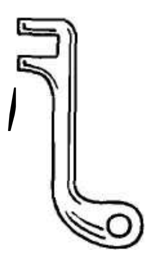
® 3230

@ M-55XA

~M-35X

~M-34X

~3539



5635

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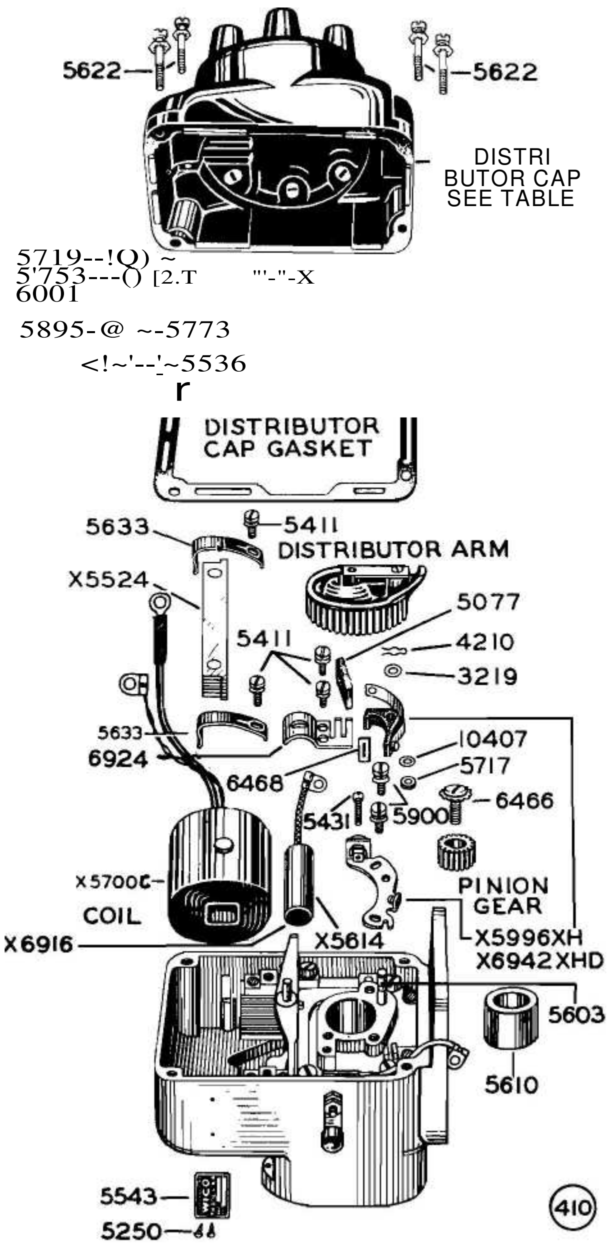
X5757

6074

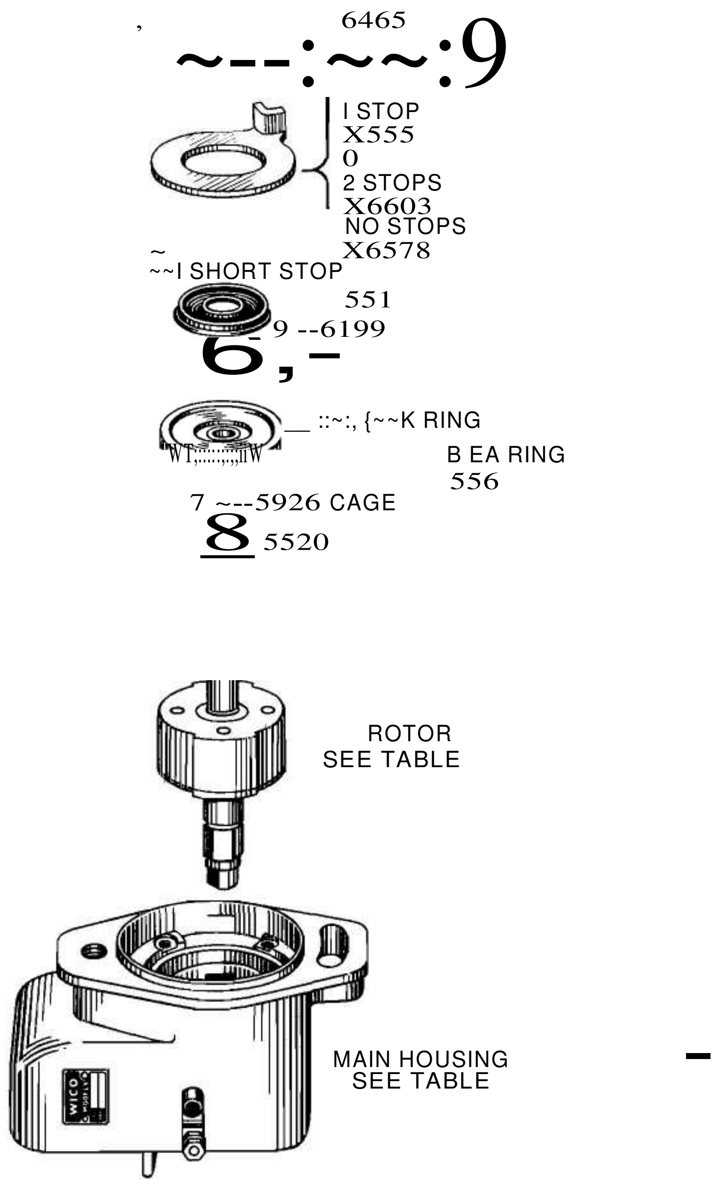
Le Roi Type Ground

Connection Kit K-6450

MODEL IN AND IND

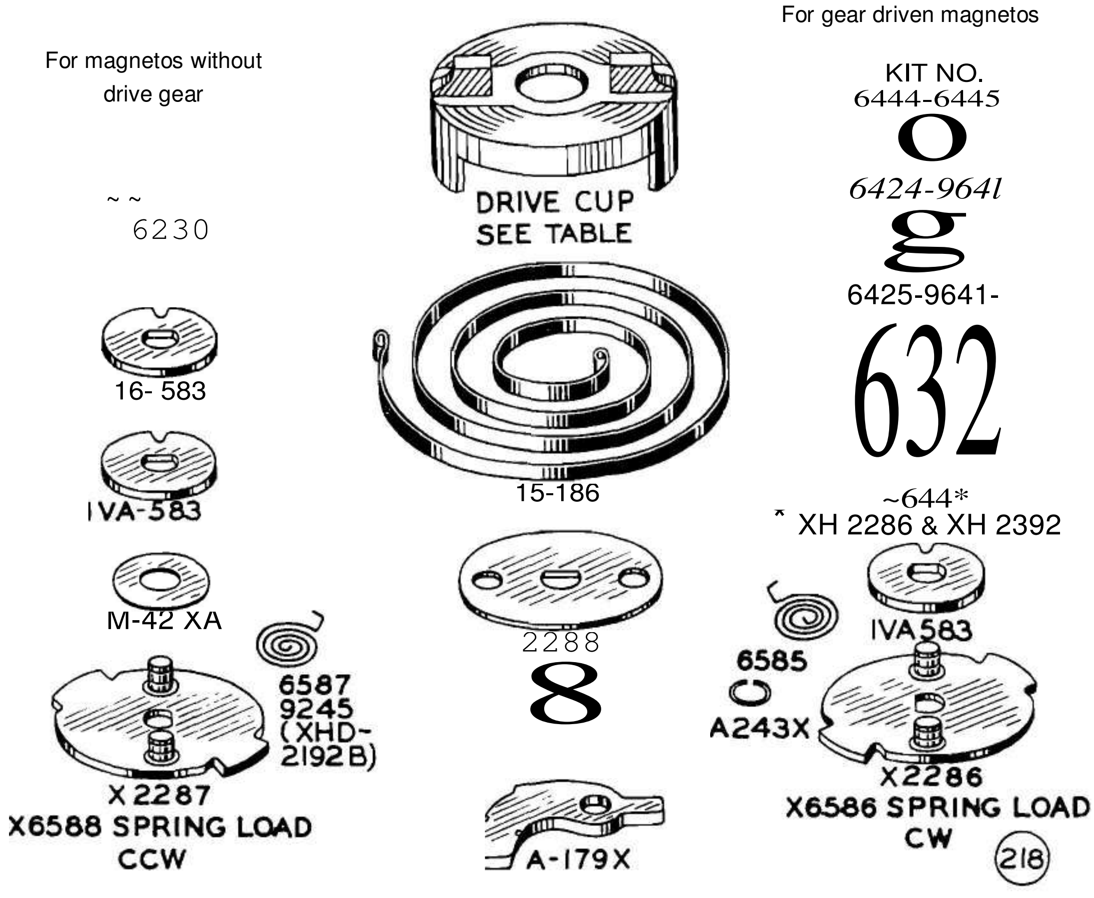


EXPLODED VIEW - DISTRIBUTOR END



EXPLODED VIEW -IMPULSE END

IMPULSE PARTS

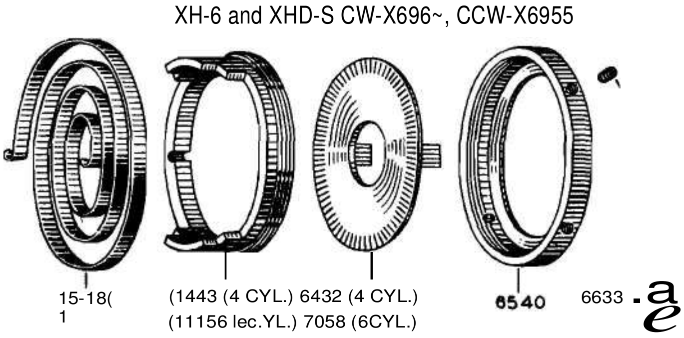


ADJUSTABLE DRIVE CUP *For flange mounted magnetos*

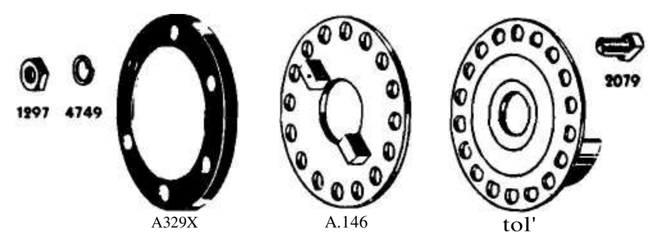
Complete Drive Cup Unit

XH-~ and XHD-~ CW-X663~, CCW-X6636

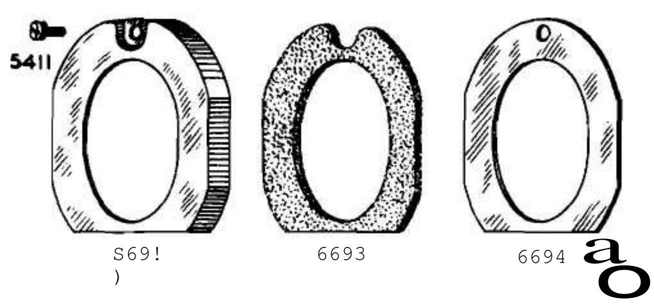
XH-6 and XHD-S CW-X696~, CCW-X6955



ADJUSTABLE DRIVE CUP *For base mounted magnetos* Complete Drive CuP Unit X208~



DUST COVER UNIT X6768



XH & XHD MAGNETO

Engine ManuFacturer	Specification	Type	Mounting See Note	Lag Angle	Rotation	Overhaul Package	Contact Set
American Farm	XH·10B	XH.1	LB	10°	CCW	K11802	X5996
American Farm	XH·11	XHG·2	LB	10°	CCW	K9358	X5996
Cushman Motor	XH·16	XR.2	LB	10°	CW	K9358	X5996
John Deere Harvester	XH·17	XHG·4	HB	25°	CW	K9358	X5996
-T;Roi	XH.19B&C	XH·1	HB	20°	CW	K11802	X5996
Le Roi	XH·20	XHG·2	HB	20°	CW	K9358	X5996
Le Roi	XH·22	XHG·4	HB	20°	CW	K9358	X5996
Le Roi	XH·23	XHG·4	HB	20°	CCW	K9358	X5996
New Beeman Tractor	XH·29B	XH·1	LB	30°	(CW	K11802	X5996
American Farm	XH·32	XH·2	LB	10°	CCW	K9358	X5996
Continental Motors	XH·41	XHG·4	LB	23°	(W	K9358	X5996
Stover Enqine	XH·79B	XH·1	LB	15 a	CW	K11802	X5996
Stover Engine	XH·81	XHG·2	LB	15 a	CW	K9358	X5996
Novo Engine	XH.113	XH·2	HB	27°	(W	K9358	X5996-
Novo Engine	XH.115B&C	- Xm---LB		19°	CW --~1802		X5996
Lauson	XH·131 B	XH·1	LB	12°	LW	K11802	X5996
Stover Engine	XH·139	XHG·4	HB	15°	CW	K9358	X 5996
Vaughan Motor	XR·145B&C	XR.1	[B	25~	r.W	1<:11802	X5996
Wisconsin Motor	XR·150B&C	XR·1	LB	29°	CCW	K11802	X5996
Jacobsen Mfg.	XR·156	XR.2	[B	22°	CW	K93S8	XS996
-Vivian Engine	XH·1S7B	XH.1	HB	30°	CW	K11802	XS996
Le Roi	XH·169	XHG·2	HB	20°	CCW	K9358	XS996
Waukesha Motor	XH·175	XHG·4	HB	25°	CW	K93S8	X 5996
Standard Service Sta.	XH·184	XHG·4	HB	30°	CW	K9358	X5996
Int'l Harvester	XH·192B&C	XH·1	Wf	19u	CW	K11802	XS996
Int'l Harvester	XH·212B&C	XH.1	WF	19°	CW	K11802	X 5996
Wisconsin Motor	XH·241	XHG·4	HB	29°	CCW	K9358	XS996
Vaughan Motor	XH·246B	XH·1	HB	2So	CW	1(11802	XS996
Stover Engine	XH·257	XHG·2	WF	15°	CW	K9358	XS996
Hercules Motors	XH·261	XHG·4	HB	15°	CW	K9358	X5996
Novo Enqine	XH·264	XHG·4	HB	27°	CW	K9358	X5996
Stover Engine	XH·274B	XH.1	WF	15°	CW	K11802	XS996
Jacobsen Mfg.	XH·305B	XH.1	HB	22°	CW	K11802	X 5996
Fuller & Johnson	XH·307B	XH·1	HB	12°	CW	K11802	X5996
Cushman Motors	XH·404	XH·2	LB	10°	CCW	K9358	XS996
Le Roi	XH·414	XHG·4	HB	35°	CW	K9358	XS996
-Le Roi	XH·438	XHG·4	SF -	35°	CW	K9358	X5996
Masse~.Harris	XH·456	XHG·4	HB	15°	CCW	K9358	X5996
Massey.Harris	XH·457	XHG·6	HB	30°	CCW	K9358	X5996
Hercules Motors	XH.469	XHG·6	HB	25°	CCW	K9358	X5996
Hercules Motors	XH·473	XHG·4	HB	15°	CCW	K9358	X5996
J. Deere, Waterloo	XH·477	XH·2	SF	35°	(CW	K9358	X 5996
Continental Motors	XH·494	XHG·4	SF	20°	CW	K9358	X5996
Standard Service Sta.	XH·514	XHG·2	LB	30°	C(W	K93S8	X5996
Standard Service Sta.	XH·520	XHG·4	HB	35°	CW	K9358	X5996
Standard Service Sta.	XH·522	XHG·4	HB	35°	CCW	K9358	XS996
Standard Service Sta.	XH·524	XHG·6	HB	40°	CW	K9358	XS996
Standard Service Sta.	XH·556B&C	XH·1	LB	25°	CW	K11802	X5996

"" When installing X5700C as a replacement coil, we recommend using an X6916 condenser and 6924 clamp.

TABLE OF VARIABLE PARTS

Condenser	Coil 'See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Breaker Group	Housing / Impulse Unit	Drive Cup	Gear	Specification
X6916	X5700C	X6533	None	Y8538	X7260	X5747	5671		XH-108
X5614	X5700C	X5776	X9564	Y5946	X6215	X5741	5671		XH-11
X5614	X5700C	X5770	X5531	Y5761	X6358 +	X6157	5611		XH-16 ----
X5614	X5100C	X5111	X95	Y5710	X6209	X6258	1657		XH-17
X6916	X5700C	X6533	None	Y7569	5(7258	X6256	2018		XH-19B&C
X5614	X5700C	X5116	X9564	YI)944	X6210	X6256	2078		XH-20
X5614	X5700C	X5777	X9564	Y5710	X6210	X6261	2078		XH-22
X5614	X5700C	X5777	X9564	Y5758	X6210 +	X6262	2078		XH-23
X6916	X5700C	)(6533	None	Y8538	X7261	X5747	5671		XH-29B
X5614	X5700C	X5770	X5531	Y5594	X6165	X6024	5671		XH-32
X5614	X5700C	X·5777	X9564	Y5710	X6214 +	X6157	5611		XH-41
X6916	X5700C	X6533	None	Y7569	X7261	X5915	5671		XH-798
X5614	X5700C	X5776	X9564	Y5944	.X62.15	X5915	5671		XH-81
X5614	X5700C	X5770	X5531	Y5761	.X615R	X6258	1657		XH-113
X6916	X5700C	X6533	None	Y7569	X7260	X5915	5671		XH-115B&.C
X6916	X5700C	X6533	None	Y7569	X7261	X5915	5671		XH-1318
X5614	X5700C	X5117	X9564	Y5710	X6209	X6258	1657		XH-139
X6916	X5700C	X6533	None	Y7569	X7260	X5915	5671		XH-1458&C
X6916	X5700C	X6533	None	Y8538	X7257	X5747	5671		XH-150B&C
X5614	X5700C	X5770	X5531	Y5761	X6358 .	X6157	5671		XH-156
X6916	X5700C	X6533	None	Y7569	X7259	X6254	1657		XH-157B
X5614	X5700C	X5776	X9564	Y5946	X6210	X6263	2078		XH-169
X5614	X5700C	X5777	X9564	Y5710	X6210	X6258	1651		XH-175
X5614	X5700C	X5777	X9S64	YS710	X6209	X6258	1657		XH-184
X6916	X5700C	X6533	None	Y7569	X7266	X6415	2061 A	.6427	XH-1928&C
X6916	X5700C	X6533	None	Y7569	X7266 .	X6416	2061 A	.6426	XH-212B&C
X5614	X5700C	X5777	XQ564	Y5758	X6213	X6250	4203		XH-241
X6916	X5700C	X6533	None	Y7569	X7258	X6254	1657		XH-246B
X5614	X5700C	X5776	X9564	Y5944	.X6197 .	X6622	6621		XH-257
X5614	X5700iC	X5777	X9564	Y5710	X6212	X6258	1657		XH-261
X5614	X5700IC	X5777	X9564	Y5710	X6210	X6258	1657		XH-264
X6916	X5700C	X6533	None	'Y7569	X7265 .	X6~22	6621		XH-274B
X6916	X5700C	X6533	None	Y7569	X7259	X6254	1657		XH-3058
X6916	X5700C	X6533	None	Y7569	X7258	X6254	1657		XH-307B
X5614	X5700C	X5770	X5531	Y5594	X6358	X6024	5671		XH-404
X5614	X5700C	X5777	X9564	Y5710	X6209	X6258	1657		XH-414
X5614	X5700C	X5777	X9564	Y5710	X6198	X6080	6078		XH-438
X5614	X5700C	X5777	X9564	Y5758	X6209	X6259	1657		XH-456
X5614	X5700C	X5897	X5787	Y5758	X6209	X6259	1657		XH-457
X5614	X5700C	X5897	X5787	Y5758	X6209	X6259	1657		XH-469
X5614	X5700C	X5777	X956.4	Y5758	X6209	X6259	1657		XH-473
X5614	X5700C	X5651	X5617	Y5594	X6500	X6270	3744		XH-477
X5614	X5700C	X5777	X9564	YS710	X6195	X6080	6078		XH-494
X5614	X5700C	X5776	X9564	Y5946	X6214	X5747	5671		XH-514
X5614	X5700C	X5777	X9564	Y5710	X6209	X6258	1657		XH-520
X5614	X5700C	X5777	X9564	Y5758	X6209	X6259	1657		XH-522
X5614	X5700C	X5897	X5787	Y6483	X6209	X6258	1657		XH-524
X6916	X5700C	X6533	None	Y7569	X7261	X5915	5671		XH-556B&C

XH & XHD MAGNETO

Engine Manufacturer	Specification	Type	Mounting See Note	Lag Angle	Rotation	Overhaul Package	Contact Set
Standard Service Sta.	XH·557B&C	XH·1	LB	25°	CCW	K11802	X5996
Standard Service Sta.	XH·564	XHG·4	LB	25°	CW	K9358	X5996
Standard Service Sta.	XH·565	XHG·4	LB	25°	CCW	K9358	X5996
Te R~i------------	xR.623	XHG·4	SF	20°	CW	K9358	X5996
Buda	XH·631	XHG·6	HB	40°	CW	K9358	X5996
Le Roi	XH·633	XHG·4	SF	20°	CCW	K9358	X5996
Le Roi	XH·635	XHG·2	SF	20°	CW	K9358	X5996
Le Roi	XH·636	XHG·2	SF	20°	CCW	K9358	X5996
Cooper·Bessemer	XHD·685	XRD·2	RB		~	K11802	X6942
Waukesha Motor	XH.731	XHG·4	HB	17°	CW	K9358	X5996
Waukesha Motor	XH.732	XHG·4	HB	20°	CW	K9358	X5996
Waukesha Motor	XH·733	XHG·6	HB	30°	CW	K9358	X5996
Waukesha Motor	XH·734	XHG-4	HB	22°	CW	K9358	X5996
Novo Engine	XH·787B	XH·1	SF	17°	CW	K11802	X5996
Wisconsin Motor'	XH·791B&C	XH·1	WF	29°	CW	K11802	X5996
Waukesha Motor	XH·870	XHG·4	HB	15°	CW	K9358	X5996
J. Deere Harvester	XH·873	XHG·4	HB	15°	CW	K9358	X5996
Buda Com~an~	XH·887	XHG·4	HB	25°	CW	K9358	X5996
Standard Service ~ta.	XH-894	XHG·4	SF	30°	CW	K9358	X5996
j. Deere, Dubuque	XH·909	XH·2	DF	20°	CW	K9358	XS996-
Allis·Chalmers	XHD·91J}	XHD·4	SF	30°	CCW	K11802	X6942
Novo Engine	XH·926	XH·2	SF	17°	CW	K9358	X5996
Stover Engine	XH-936B	XH·1	WF	15°	CW	K11802	X5996
Wisconsin Motor	XH·951 B	XH·1	WF	29°	CW	K11802	X5996
Int'l Harvester	XH·960	XHG·4	SF	14°	CW	K9358	X 5996
Wisconsin Motor	XH·962	XHG·4	HB	29°	CW	K9358	X5996
Hercules Motors	XH·970	XH.2	DF	10°	CW	K9358	X5996
Wisconsin Motor	XH·973B	XH·1	LB	29°	CCW	K11802	X6942
Continental Motors	XH·217	XHG·6	SF	45°	CW	K9358	X 5996
Waukeska Motors	XH·980	XHG·4	HB	25°	CW	K9358	X 5996
Waukesha Motors	XH·1007	XHG-4	HB	22°	CW	K9358	X5996
Allis·Chalmers	XH·1022	XHG·4	SF	30°	CCW	K9358	X5996
Continental Motors	XH·1023	XHG-4	SF	20°	CW	K9358	X5996
J. Deere Waterloo	XH·1042	XH·2	SF	25°	CCW	K9358	X5996-
~	XH.1053	XHG·4	SF	25°	CW	K9358	X5996
Stover Engine	XH.1059	XHG·2	WF	15°	CW	K9358	X5996
Gravel)' Motor	XH·1072B&C	XH·1	HB	12°	CW	K11802	X6942
D.W.Onan	XH·1088	XHG·2	HB	25°	CCW	K9358	X5996
Oliver Cor~.	XH.1113	XHG-4	SF	21 °	~CW	K9358	X5996
Oliver Cor~.	XH.1128	XHG·4	HB	28°	-- CCW	K9358	X5996
J. Deere Harvester	XH-1131	XHG-6	HB	25°	CCW	K9358	X5996
National Sue~ly__	XHD·1136	XHD·2	SF	35°	CCW	K11802	X6942
Hercu~s Motl;)r	XH·1137	XHG·4	SF	21 °	CW	K9358	X5996
American Farm	XH·1140	XH·2	HB	10°	CCW	K9358	X5996
American Farm	XH.1141B	XH·1	HI3	1Q"	CCW	K9358	X5996
Hercules Motors	XH·1142	XHG·4	HB	15°	CW	K9358	X5996
Avery Farm	XH-1163	XHG·4	HB	20°	CW	K9358	X5996

'f When installing X5700C as a replacement coil, we recommend using an X6916 condenser and 6924 clamp.

TABLE OF VARIABLE PARTS

Condenser ·See Note | Coil CRI ap | Distributor Cap | Distributor Rotor | Magnet Rotor | Main Housing | (mpu~e Coupll.ng Unit | Drive Gear C | Gear Specification up

X6916 X5700C X6533 None Y8538 X7261 X5747 5671 XH·557B&C
X5614 X5700C X5777 X9564_ Y511Q___J(Qg!..!._ +X61_5_l__5671_________ . XH·564
_X5~H_~~]QOC _X577l_ ~)(956L Y5_758_X~214~X6024~Q_l1____ ____XtI_:_565_
_ X5614 X 5700<':; _ _l<_l_777__ X9564 Y571 0 X6198 X6257 180{1~~_ .. __ XH.62L___________________
_
_ X5_(>.1A____2(570Q_e_____x5891______X~L8J_ Y648~_~Q202_X6258 _..1Q_?J _______ XH·63_1 __
_ J<5(!H_)(5700C_____l(~_777__X9S_Q4 __ .Y~758_~612JL_XQ_~Q_4__j_806IL _______ XH·63._3 _ _
_)(~QH __)(570Q_~ _ _K57]Q_ _ _X95_Q! __ Y5944_X_619_!!_~X626~_18_()6B_____ _l(H~635 ____
~..X5..Q1A~]00C ______><2 77Q_....X2564 _ Y594_Q X619!! ><_9_266 __ 1806B _________XH-~~____ _
X6916 __ ~J2Q_Q2_:* 2(577_6 __ X9_5M___YH4L X69SL .X813_9L_J(>~1 ___________ .. _ XHD-Q~ __
X5QJ4 XS70QC ><5777 _ X95Q4 Y5710)(6202 X_625fL 16.57 XH_-U_1
X_5_6j4_...XUQOC XS71l_ _X95Q_4_____ Y5__71_Q X62_0.9 _ ___X625_8__ 165_7 __ XH,-ll2 _._
XS_Q1_4 X2.700_<: X5897 .X5787)'.5710 _)(6.lQ9 _X(>22!l_ 1.657 _______________ Xtl-73l
_X56lA __ X_UQOC_X5I1_7 .]<9564 _'f571_0 _2<62J_0 _X625JI_ 1_Q5_I_ __ _ XH:_UL __
X691_Q___)(57Q()C_l<_5]_QA_ NQI1e _ Y~569__X7262 ~626S__18Q6B__ _ __ XJ-f,I8lB._ __
XQ<}_!Q __ X5]OO~ __ X§_?l_3 ._N()n_~ _:i_7569_'X_7264~X6459__ ._204_Q_ __ g_273 _XH-791_B~C__
X5QL4. MJQOC_X571L_X9564__ Y5~t() __ X621Q__X625~_t657 ____________________XH_:_870 __
__ X5..614_ X57QQC____)(2.J]_7_._X_9564___ Y571 O_)(62Q9 X6258 1657 __
_______X1--h8l1_ __
__ X5614 _ _X57QQC__)(~llL_)(_9564 __ Y_571_() __ X6209 __ X625_!!_16~I___ _ XH_-_S_8L __
_ X_5Q14_X_570Q~511J _ ___X9~64 __ Y5_I1_0 _ _X612L __ ><6267 ....23(>1__ _. _____ XtI-894... __
- X_~L4_J<5700C__~5_770__ X5.UL Y~7_Q1 __ X.Q50t_X6458___2_Q_4Q_ ________ A148 ..... XH·902__
..••. _ ..
_XQ_9R __ X l26Q9_! _ X577I_X95M_ Y(>91_2 _ ___2<6950 __ X8569_ ..582:1.___ __XHO-919 _
_ XS6JA __ X5JOQC__ X..5_170 XS_53L_Y576l_+X61}_Q___X6251_1S06B ___________ XH-926_
_X6_91(>__l<~100 ~_ X653~_ ~one____Y7569___K7265__ X625L_ 1651__ _ _________ X_H-_9368._
X6_<lt~___l(5 7Q_Q~__M5R__No_!l_El _)'I5~<2 . _~72_QA_X_Q~5] __ 2040 . __ _2_2_n XH ·95_tB_ _
_X~14_)(_EOOC;; ~~EL _____ X9~§.!___'y_5_71Q __X6_t~~______K_Q~60 2061"A.___ _..Xtf_·9_6O_ __
X5_6_1__4 _X5_7QO_c:: __ X~7_TL_~9~.Q~_yU10 __ X621 L __ 2<6249_420L _______ ___XH-962__ _
_)(~6tL_X5JOOC ... 2<...l77Q __XS53t_"f_5161 __ X61]2 __)(~4.~_ 2040________522_2 __ .xH-970__ _
. X69.t6___X~_700C__ ~~_3.3 _ _____t.lQl!~ _Y8S1.8_X725'l_'xSJ4.I_561L__________ XI ...
i-·971B_
_ X5Q1A___l(5700C___X~897 __ X5IElL_Y_64E1L~6195_ X6255. _375_Q __ . ---.Xtl:9.1L
_ 2<5614__M 700 C _XUI1 __ X9564__Y.5 71 O __ l<_Q2.Q9 __ ~62 5 8 J 657 .. _ ____XH-'-'.·9.L>8".-0 __
_X5_§1A___~.S70()~5777______X9_SQL __ Y51tQ_. X~209 _X_Q~JLj6ll_ ______________ X_H-100L
X5614 X5700C X5777 X9564 _Y~7511_X619L~62U_ 2061B__ ________________ XH_:1022 __
.~5614_____)(5700C~Ul__X95M_ Y~71_0 ~XQ195_ X6j6Q____j061 A___ _><H.102_3_
---_2<561.4 X5700_e_______)(S651 __ _X~~17 Y5~9_4 _l(650()_~6378 _ 621:L___ __XH·1042_
_ X561A__X5700C X5_777 _ X95_QL '0J1Q_ X6195 .... X64~8 __ g_Q~_0 ______ 4~~I_Xti__-lQ51__
_
_ X_5614 X5700C X5_776 _ X95_64___Y59H_~X6197 __________X6254 1651 ......__ ....XI-I·1059_
X6916 X5700C X653~ None Y7569 X7259 X6254_1_§57 XH.10728&C_
_2<5614_ X5700C X5776 __)(9564 .. Y5946_X62Q9 X6252 1657 _________________________XH·1088
_X5614 X5700C X5777 X9564 Y5710 X619LX625J_ 18068_________________________ XH·1113
_X_5614_ X57QQJ: X 51IL_l(9564 __Y_5758_X6209._~Q~j__1657_____________________~1::I.1128_
X5614_____)(s 700e X5 821 __)<5 787________'!') 75 8 ___)(_QiQ9 __X6259._ J~5 7___________ XH:.tU1_~
X6916______Xl2609~ X577(> __ ~9564 Y8_90_4. _X69}Q__ __ X890~ 2061A__ XHD·1136
X5614 X5700C X5777 X9564 Y5710 X6195 X6257 1806B XH 1137
:.x5614x570oi:-X577()---XS53"1-Y5594____X616Q.~ ... X6259._ 1657. XH.1140--
X12609 coil replaces X6936
1<~916_ X570Q~5.31__~ol1~___Y8~3_8_l(7i5_1J X6g_5_2. 1657____ ____________________XH.j_1A1tL_.
X5614__X5700C X~777 __ X9564 _Y5.11Q_ X629.9._ X6258 1657_________________ . m_J~H_1_14L __
. X5614 X5700C X5777 X956.4 Y5710 }t62Q2_ _~Qg58___1_Q_5_L_ ________XH~t1-'--"6'-"-3_

XH & XHD MAGNETO

Engine Manufacturer	Specification	Type	Mounting tSee Note	Lag Angle	Rotation	Overhaul Package	Contact Set
Hercules Motors	XH-1166	XH-2	DF	10°	CW	K9358	X5996
Avery Farm	XH-1180	XHG-4	HB	20°	CCW	K9358	X5996
Cushman Motors	XH-1215	XH-2	LB	25°	CCW	K9358	X5996
Fate Root Heath	XH-1222	XHG-4	SF	15°	CW	K9358	X5996
Blaw Knox	XH-1261	XHG-4	HB	15°	CW	K9358	X5996
j. Deere Waterloo	XH-1263	XH-2	HB	35°	CCW	K9358	X5996
Cushman Motor	XH-1277B	XH-1	LB	10°	CCW	K11802	X6942
Massey-Harris	XH-1280	XHG-4	HB	25°	CW	K9358	X 5996
Wisconsin Motor	XH-1292	XH-2	WF	29°	CW	K9358	X5996
Wisconsin Motor	XH-1295B	XH-1	WF	29°	CW	K9358	X5996
Wisconsin Motor	X •• H' --:-1-=-29=-:5;:c;C---------.X'"H..----c-ıc----'W-c-;F;;;--------=2--=-9-=-0	----------,C~W~---------:K-:-'1~1~8~02-----'-cX~599~6~					
Wisconsin Motor	XH-1295D	XH-1	WF	29°	CW	K11802	X5996
Wisconsin Motor	XH-1295Y	XH-1	WF	29°	CW	K9358	X 5996
Wisconsin Motor	XH-1297B	XH-1	WF	29°	CW	K11802	X6942
J. Deere Waterloo	XH-1300	XH-2	SF	35°	CCW	K9358	X5996
----Cockshutt Plow	XH-1325	XHG-4	SF	21 °	CW	K9358	X5996
Wisconsin Motor	XH-1343	XH-4	SF	29°	CW	K9358	X5996
Wisconsin Motor	XH-1343B	~H-4	SAE	30°	CW	K9358	X5996
Int'l Harvester	XH-1344	XHG-4	SF	35°	CW	K9358	X5996
National Supply	XHD-1350	XHD-2	SF	35 °	CW	K11802	X6942
Continental Motors	XH-1354	XHG-4	SF	20°	CW	K9358	X5996
Minneapolis-Moline	XHD-1379	XHD-6	SF	52°	CW	K11802	X6942
j. I. Case	XH-1449	XHG-4	SF	30°	CW	K9358	X5996
Blaw-Knox	XH-1454	XHG-6	HB	25°	CCW	K9358	XS996
Massey-Harris Ltd.	XH-1515	XHG-4	SF	20°	CW	K9358	XS996
Continental Motors	XHD-1524	XHD-6	SF	30°	CW	K11802	X6942
Worthington Pump	XH-1535	XHG-4	SF	15°	CW	K9358	X 5996
Waukesha Motors	XHD-1541	XHD-6	SF	27°	CCW	K11802	X6942
Hercules Motors	XH-1572	XHG-4	HB	25°	CCW	K9358	X5996
United States Motors	XH-1593	XH-2	DF	10°	CW	K9358	X5996
B. F. Avery & Sons	XH-1604	XHG-4	SF	21 °	CW	K9358	XS996
Continental Motors	XH-~648	XHG-4	SF	15°	CW	K9358	X5996
Easthope Bros.	XH·1686	XH-2	HB	30°	CCW	K9358	X5996
Buda	XH·1714	XHG·4	SF	35°	CW	K9358	X5996
Int'l Harvester	XHD·1715	XHD·4	SF	35°	CW	K11802	X6942
Buda	XH·1733	XHG·6	SF	52°	CW	K9358	X5996
Cushman Motor	XH·1748	XH-2	LB	25°	CW	K9358	X 5996
Standard Service Sta.	XH-1769	XHG·4	SF	15 °	CCW	K9358	X5996
Minneapolis Moline	XHD.1784	XHD.6	SF	52"	CW	K11802	X6942
Minneapolis Moline	XHD·1785	XHD·4	SF	35°	CW	K11802	X6942
Wisconsin Motor	XH·1806	XHG-2	SF	29°	CW	K9358	X5996
Buda	XHD-1835	XHD-6	SF	52°	CW	K11802	X6942
Worthington Pump	XH·1869	XHG-4	SF	15 °	CW	K9358	X5996
j. Deere Waterloo	XH·1886	XH·2	?I	120	CW	K9358	X5996
Continental Motors	XH·1909	XHG·6	SF	35 °	CW	K9358	X5996
Minneapolis-Moline	XH·1916	XHG·4	'JM	25°	CW	K9358	X5996
Ford Motor	XH·1917	XH·4	SF		CW	K9358	X5996
Le Roi	XH-1921	XH-2	SF	20°	CCW	K93S8	X5996

* When install ing X5700C as a replacement coi 1, we recommend us ing an X6916 condenser and 6924 clamp.

TABLE OF VARIABLE PARTS

Condenser	Coil *See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Main Housing	Impulse Coupling Unit	Drive Cup	Gear	Specification
X5614	X5700C	X5770	X5531	Y5761	X6172	X6458	2040	5083	XH-1166
X5614	X5700C	X5777	X9564	Y5758	X6209	X6259	1657		XH-1180
X5614	X5700C	X5770	X5531	Y5594	X6165	X6024	5671		XH-1215
X5614	X5700C	X5777	X9564	Y5710	X6195	X6260	2061 A		XH-1222
X5614	X5700C	X5777	X9564	Y5710	X6209	X6258	1657		XH-1261
X5614	X5700C	X5651	X5531	Y5594	+X6158	X6271	4702		XH-1263
X6916	X5700C	X6533	None	Y853~8	X7261	X5747	5671		XH-1277B
----XS614	X5700C	X5777	X9564	Y5710	X6209	X6258	1657		XH-1280
~X5614	x570~xsno~----XS53~1		-Y5761------		x6464	X6458	2040		XH-1292
X5614	X5700 C	X6533	None	~-+Y6606B)	(6174-	X6459	2040	2273	XH-12958
X6916	X5700C	X6533	None	Y7569	X7265	X64592040		2273	XH-1295C
X6916	X5700 C	X6533	None	Y7569	X7265	X6459	2040	2273	XH-1295D
~ X5614---	X5700C:----	x71~1~4--	Non-e -.	Y6606--	X617r~	X6459	2040	2273	XH-1295Y
X6916	X5700C	X6533	None	Y7569	X7265	X6457	2040	2273	XH-1297B
XS614	XS 700 C"_	XS651----	XS61"'--	Ys594-	x65QO--	x6272"--	3565-	---	XH .. 1 300
X5614	X5700 C	X5777	X9564	Y5710	X6195	X6_257	___UJQ_§J.!~ __ ~~~~----		XH-1325
X5614	X5700C	X5653	_X5531 _~	Y5560	X6150	X6455	3870	3956	XH-1343
X6916	X5700C	X5653	X5531	Y 5560	X6150	X6455	3870	~	XH- 1343B
X5614	X5700 C	X5777	*X9564*	Y5710	*X6195*	X6255	3750		XH-1344
X6916	X 12609 *	*X5776*	*X9564*	Y8748	)<6950	*X8894*	6078		XHD-1350
X5614~	X57OoC-	X577-7-	X9564	Y5710~	X6195~	X62602061A			XH-1354
X6916	X12609*	X5897	*X5787*	Y6913	X6950	X7280	7284		XHD-1379
X5614	X5700 C	X5777	X9564	Y5710	X6195	*X6267*	2361		XH-1449
_~51>1A_",,_	5700 C	X58~7 __	)(5787 __	-Y~75-~--",,!>g09		X6259	1657		XH-1454
X5614	X5700C	X5777	X9564	Y5710	X6195	X6260	2061A		XH-1515
- X6916 -	Xl2609 * -	X5s-97-~	Xrfi87~~-	Y (913)	(6950	X7368	1369		XHD-1524
X5614	X5700C	*X5777-*	*X9564*--	Y5710~	X6195	*X6257*	1806B		XH-1535
X6916	X12609*	X5897	*X5787*	Y6931	X6950	*X8585*	8567		XHD-1541
X5614	X5700C	*X5777*	X9564	Y5758	X62-0"9-	X6259	1657		XH-1572
X5614	XS700C	X5770	*X5531*	Y5761	*X6172-~*	*X6458*	2040	5083	XH-1593
X5614	X5700C	X5777	*X9564*	Y5710~	*X6195*	*X6257*	18068		XH-1604
X5614	X5700C	*X5777*	*X9564*	Y5710	*X6195*	X6260	2061A		XH-1648
X6916	X12609*	X5777	X9564	Y6911	X6950	[illegible]	[illegible]		XHD-1715
X5614	X5700C	X5770	X5531	Y5594	X6158	X6259	1657		XH-1686
X5614	X5700 C	X5777	X9564	Y5710	*X6195*	X6260	2061 A		XH-1714
X5614	X5700C	*X5897*	X5787	Y6480		X6255	3750		XH-1733
X5614	X5700C	X5770	X5531	Y5761	X6195	+X6157	5671		XH-1748
X5614	X5700 C	X5777	X9564	Y5758	X6195	*X6251*	5821		XH-1769
X6916	X12609*	X5897	*X5787*	Y6913	X6950	X7281	7283		XHD-1784
X6916	X12609*	*X5777*	X9564	Y6911	X6950	X7279	7282		XHD-1785
X5614	X5700 C	*X5776*	*X9564*	Y5944	X6195	*X6454*	2061 A	7051	XH.1806
X6916	X12609 *	*X5897*	*X5787*	Y6913	X6950	X7368	7369		XHD·1835
X5614	X5700 C	*X5777*	*X9564*	Y5710	X6195	X6260	2061 A		XH·1869
X5614	X5700 C	X5651	X5617	Y5761	X6500	X6351	6349		XH·1886
XS614	X5700C	X5897	XS787	YS710	X619S	X62602061A			XH.1909
X5614	X5700C	X5777	*X9564*	Y5710	X6195	X6966	2361		XH·1916
XS614	XS700 C	*X5653*	*X5531*	Y5560	X6150	None	None		XH-1917
X5614	X5700C	X5770	*X5531*	Y5594	X6628	X6451	2061A		XH·1921

* X12609 coil replaces X6936

~ With Wisconsin Motor Magneto XH-1343B, use gear 3956 on V F4, VE4 and VD4 eng ines use gear 6504 on VM4 and VP4

XH & XHD MAGNETO

Engine Manufacturer	Specification	Type	Mounting (See Note)	Lag Angle	Rotation	Overhaul Package	Contact Set
j.l. Case	XH·1950	XHG·4	SF	25°	CW	K9358	X5996
Le Roi	XH·1951	XH·2	SF	20°	CW	K9358	X5996
Wisconsin Motors	XH.1961	XH~2D	SF	29°	CW	K11~80~2--	X·6942
--Wisco~sT~-Motors	-XH.1961 B	XH·2D	SF	29~0	--~CW--	K11802	X6942
Wisconsin Motors	XH·1961 (	~~H .~_~	Sf	jj_"	(_W	K11802	X6942
Buda	XHD·1992	XHD·4	SF	35 °	CW	K11802	X6942
Le Roi	XH.1993	XHG·4	SF	35°	(W	K9358	X5996
&r_~Motor	XH·1994	XH~4	SF	30°	CW	K9358	X5996
Wisconsin Motors	XH·1995	XH·1	WF	29°	CW	K11802	X6942
Wisconsin Motors	XH·1995B	XH·1	WF	29°	CW	K11802	X6942
Minneapolis Moline	XH·2002	XHG·6	SF	35°	CW	K9358	X5996
Kohler	XH·2006	XHG·4	SF	20°	(W	K9358	X5996
Bud~_~	XH·2012	XHG·4	SF	45°	!;_W	K9358	X5996
Harl~-Qg~i~~()n	XH:~QH	~_H_.2	1l		CCW	K11802	X6942
Harley-Davidson	XH·2017B	XH·2	LB		CCW	K11802	X6942
Continental Motors	XH·2023	XHG·6	SF	25°	CW	K9358	X5996
Kohler	XH·2043	XHG·4	HB		CW	K9358	X5996
Gravely Tractor	XH·2049	XH·1	LB	10°	CW	K11802	X6942
Gravely Tractor	XH·2049B	XH·1	LB	10°	CW	K11802	X6942
Palmer Bros.	XH.2059	XH·1	DF	30°	CCW	K9358	X5996
Palmer Bros.	XH·2059B	XH·1	DF	30°	CCW	K11802	X6942
Palmer Bros.	XH.2059(	XH·_1	QL	lQo	((W	K11802	X6942
Kohler	XH·2062	XH·2D	SF	20°	(W	K11802	X6942
Kohler	XH·2062B	XH·2D	SF	20°	CW	Kl1802	X6942
Oliver Corp.	XH·2075	XHG·6	SF	35°	CW	K9358	X5996
Minneapolis·Moline	XHD·2079	XHD·4	SF	25°	(W	Kl1802	X6942
Le Roi	XHD·2080	XHD·1	SF	20°	CW	Kl1802	X6942
Clark Engine	XH·2081	XH·1	WF	29°	CW	K9358	X5996
Clark Engine	XH·2081 B	XH·1	WF	29°	CW	Kl1802	X6942
Kermath Mfg.	XH·2092	XHG·6	SF	35°	CW	K9358	X5996
Buda	XH·2098	XHG·4	SF	25°	CW	K9358	X5996
Harley·Davidsan	XH·2108	XH·2	WF		CCW	K9358	X5996
Le Roi	XH·2113	XHG·4	SF	20°	CW	K9358	X5996
_L_ILR_Qj	XH.2114	XHG·4	Sf	~_l5_"	CYi	K9358	X 5996
Hercules Motors	XH·2115	XHG·4	SF	21 °	((W	K9358	X5996
Wayne Mfg.	XH·2116	XH·1	WF	20°	CW	Kl1802	X6942
Waukesha Motor	XHD·2134	XHD·4	SF	25 °	(W	K11802	X6942
KQhler	XH·2138	XHG·4	SF	20°	CW	K9358	X5996
Palmer Bros.	XH.2148	XH·2	HB	~7°	CCW	K9358	X5996
Hobart	XH·2164	XHG·4	HB	J 5°	CW	K11802	X6942
D.W. Onan	XH·2168	XHG·2	HB	~_ii~_	CCW	K9358	X5996
Le Roi	XH·2175	XHG·4	SF	20°	CCW	K9358	X 5996
Witte Engine	XHD·2192	XHD·1	DF ..	L2°	CCW	Kl1802	X6942
Wit~_f_ngine	)(HD·2192EL	~H_~._1_	Df	~ t2."_u	«W	K11802	X6942
Wiscon_sin_MQt()_l'!	2<J-i.2207 ~	XHG·4	SF	J._I~	CW	K9358	X5996
D.W.Onan	XH·2208	XHG·2	SF	25°	CCW	K9358	X5996
MinneaDolis·Moline	XHD·2213	XHD·6	SF	52°	((W	K11802	X6942
Standard Service Sta.	XHD·2214	XHD.4	SF	15°	C(W	K11802	X6942

† When installing X5700C as a replacement coil, we recommend using an X6916 condenser and 6924 clamp.

TABLE OF VARIABLE PARTS

Condenser	Coil *See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Main Housing	Impulse Coupling Unit	Drive Cup	Gear	Specification

X5614 X5700C X5777 X9564 Y5710 X6195 X6255 3750 XH-1950
X5614 X5700 (' X5770 X5531 Y5761 X6628 X6260 2061 A XH-1951
X6916 X12810 t X7123 None Y7569 X7262 X7412 2061 A 70S7 XH-1961
_X691_6_ X1281Q__t__X1123~_Nolie __ Y7S62_ X8553 _X741_2_~061A 70S7 XH-19618_
X6916 X 1281 0 t Xl12 _~ Y756CL_X_a5'i3_X__I4_12 2061 A
~____.7__¥JOS..__.7~X.._._H,-=-·1._..9..._61~C,--
___X~916_ _X 1260~ XS777 X9564 Y~911_l(6950 ~X_._.79._.1~9__..2~06.._.1~A_.___ __
~X~H,"",D~.1_,_99~2.._
X56H__X5700C X5_7Tl __ ><_95¢4___j'57tQ__?{6198 X62rr_180§L_ XH-1993
X5614 ~X5700C _X5653 _~5531_y~560_X6150 X6=8=5=5__...6~31:_-0.___
~X~H._.-1~99_._4_.____
X6916 X5700C_~653~3 __ Non_!__Y75~69 _Xl265 X6459 2040 -,7_.._S4_._..5.___,X~H~-_._1_._99~S"-=-
_ X691~ X5700C_X6533 None Y756~ _ _X72()_L_l(§459 2049__
75":_'4",_S__,_,X""-,H.___.-199SB
X5614___X570QC X5897 X5787 Y5_J1_Q___X6195 X6260 2061 A XH-2002_
X5614 ~ X5700C X 7064 X9564 Y5710 X6195 X6458 2040 7132 XH·2006
X5614 X5700C X5777 X9564 Y6483 X6195 X6255 3750 XH-2012
X6916 XS700C X5770 X5531 Y6918 X6358 None None XH·2017
X6916 X5700C X5770 X5531 X6918 X6358 None None XH·2017B
~~14 X5700C X5897 X5787 Y5710 X6195 X6260 2061A XH-2023
X5614 X5700C X5777 X9564 Y7080 ?{70~_one ~None XH-2043
X6916 X5700C X6533 None Y8538 X7263 X9374 2061B XH-2059B
X6916 X5700C X6533 None Y8538 X7263 X9374 2061B XH-2049
X6916 X5700C X6533 None Y7569 X7260 X7445B 7446 XH-2059C
X6916 X5700C X6533 None Y7569 X7260 X7445B 7446 XH-2049B
X6916 X12810 X7123 None Y7569 X7262 X7412 2061A 9071 XH-2062
X5614 X5700C X6533 None .Y6605 X6917 X9374 2061B XH-2059
X6916 X12810 X7123 None Y7569 X7262 X7412 2061A 9071 XH-2062B
X5614 X5700 C X5897 X5787 Y5710 X619S X6260 2061 A XH-2075
X6916 X12609* X5777 X9564 Y6911 X69S0 X7979 2361 XHD·2079
X6916 X12609* X6533 None Y7569 X8624 X7606 2061A XHD-2080
X5614 X5700C X6533 None .Y6606 X7276 X6459 2040 XH·2081
X6916 X5700C X6533 None Y7569 X7277 X6459 2040 XH-2081B
X5614 X5700C X5897 X5787 Y5710 X6195 X6458 2040 XH-2092
X5614 X5700C X5777 X9564 Y5710 X6195 X6260 2061 A XH·2098
X5614 X5700C X5770 X5531 V'6918 X8740 None None XH·2108
X5614 XS700C XS777 X9564 Y5710 X6198 X6260 2061 A XH-2113
XS614 X5700C X5777 X9564 Y5710 X6198 X6260 2061A XH-2114
XS614 X5700C X5771 X9564 Y5758 X6195 X6264 1806B XH·211 S
X6916 XS700C X6533 None \'7569 X7277 X7634 .7632 7646 XH·2116
X6'916 X12609* X5777 X9564 *Y6911* X6950 X6458 OJ 2040 ~467 XHD-2134
X5614 X5700C X7064 X9564 Y5710 X6195 X6458 2040 7525 XH·2138
X5614 X5700C X5770 X5531 Y5594.X6158 X62591657 XH-2148
X6916 X5700C X5777 X9564 Y5710. X6073 X6258 1657 XH.2164
X5614 X7886B X5776 X9564. Y7757 • X7754 X6252 1657 XH-2168
X5614 X7886B X5777 X9564. Y7836 • X7835 X6264 18068 XH-2175
X6916 X12609 * X9213 None Y8538 X8540 X9361 8536 XHD·2192
~ X6916 X 12609 * ?<9213 None Y8538 X8540 X9367 8536 XHD·21928
_X=5-=-61c_4_X __ 5=-c7-,-0~0-=C_X-=5__c_7_77c_____Xc_:_9::_c5-=6_:_4_Yc_:5::__::7_:_1-=--0
_X_:_6_19=-=5 X_:_93::__::66c_c:__-=9~3=52=---_=6504
XH-2207_
X5614 X5700C)(5776 X9564 Y5946 X6195 X8501 2040 XH-2208
X6916 X12609* X5897 X5787 Y6931 X6950 X8557 8556 XHD-2213
X6916 X12609* X5777 X9564 Y6912 X6950 X8568 5821 XHD-2214

X12609 coil replaces X6936 t
X12810 coil replaces X11600
OJ X6458 replaces X5982

XH & XHD MAGNETO

Engine Manufacturer	Specification	Type	Mounting (See Note)	Lag Angle	Rotation	Overhaul Package	Contact Set
J.1. Case	XH-2239	XHG-4	SF	150	CW	K9358	X5996
Lauson	XH-2256	XH-l	DF	10^{0}	CCW	Kl1802	X6942
La u son	XH - 225=6=Bc	x'-'H_-_._1	_---""D__,_F	___ _._.l O.._o	__ _,...C=C-,,-W	__ Kl, _._..18=0~2	_-,-X,-",6LC94=2~
Lufkin F&M	XHD-2263	XHD-2	HF	35^{0}	CW	K11802	X6942
John Deere	XH-2279	XHG-4	SF	15^{0}	CW	K9358	X5996
Kermath	XH-2286	XH-l	SF	15^{0}	CW	K9358	X5996
Lufkin F&M	XH-2289.:__ _ _:X_::_H_..,D:___-	2.__	SF	35^{0}	CW	K 11802	X6942
Waukesha Motors	XH-2302	XHG-2	SF	30^{0}	CW	K9358	X5996
Hercules Motors	XHD-2358	XHD-6	SF	52^{0}	CW	K 11802	X6942
Lycoming Motors / Hercules	XH-2370 / XHD-2301	XHG-4 / XHD-4	SF	23^{0} / 36^{0}	CW	K9358 / K11802	X5996 / X6942
Kermath Mfg	XH-2392	XH-2	SF	10^{0}	CW	K9358	X5996
Nordberg	XH-2403B	XH4-2	SF	15^{0}	CCW	K 11802	X6942
Nordb erg	X.~H~-~2=_c4'--12~_-'X_oc.H~-_1'		..=.cSF'	1.c...=5_0	C=.C~W	K 11802	X6942
Kohler	XH-2414	XHG-4	SF	20^{0}	CW	K1l802	X6942
Wisconsin	XH-2477B	XH-l	WF	13^{0}	CW	K11802	X6942
Kohler	XH-2485	XHG-2	SF	20^{0}	CW	Kl1802	X6942
Fairbanks Morse	XH-2497	XH-l	HF		CW	K 11802	X6942
Standard Servo Sta.	XH-2500	XHG-4	SF	30^{0}	CW	K9358	X5996
Wisconsin	XH-2504	XH-1	WF	20^{0}	CW	K11802	X6942
Waukesha	XHD-2520	XHD-1	SF	30^{0}	CW	K11802	X6942
Wisconsin	XH-2523	XH-1	SF	20^{0}	CW	K 1]802	X6942
Fairbanks Morse	XH-2525	XH-l	HF		CCW	K 11802	X6942
Wisconsin	XH-2531B	XH-2D	SF		CW	K 11802	X6942
Gravely	XH-2533	XH-l	HB	10 0	CW	K1l802	X6942
Palmer Engine	XH-2593	XH-l	LB	300	CCW	"K1l802	X6942
Standard Servo Sta.	XHD-2600	XHD-4	SF	30 0	CW	Kl1802	X6942
Int'l. Harvester	XHD-2655	XHD-4	SF	26^{0}	CW	Kl1802	X6942
Int'l. Harvester	XHD-2656	XHD-4	SF	8^{0}	CCW	K 13802	X6942
Int'l. Harvester	XHD-2657	XHD-4	SF	36^{0}	CW	K 11802	X6942
Int'l. Harvester	XHD-2658	XHD-4	SF	36^{0}	CCW	K11802	X6942
--=D.__. W"-'._:O=n.,_"a"-'.n	___.X_,_.H_.-_,,2=6."-77:	___-'X_,_.H-.C__-_,,2=D'	___D=--:_F	_----=2=-:4_0_	---=CW	K 11802	X5996
D. W. Onan	XH-2686	XHG-4	DF	24^{0}	CW	K 11802	X5996
Standard Servo Sta	XHD-2700	XHD-4	HB	30 0	_C~W	K,__11,-=8_:_0~2_	X6942
Int'l. Harvester	XHD-2752	XHD-6	HB	4^{0}	CW	K 11802	X6942
Holtcamp Elec.	XH-2780	XH-l	Hc--F	2_5_0_	CW	Kl1802	X5996
Hnltcamp El ec.	XH-2781	XHG-2	SF	25^{0}	CW	K 11802	X5996
Standard Servo Sta-.	--X-H-D---c-28C-::0--:	XHD-6	SF	45^{0}	CW	K1l802	X6942
Kohler	XHG-2857	XHG-2	SF	20^{0}	CW	Kl1802	X5996
Standard Servo Sta.	XHD-2900	XH D-6	H B	45^{0}	CW	K 11802	X6949
StandariS-er-v-. -S_!~.	--X-H---3-Q_00	XHG-4=-_-_S£ ---_-		30^{0}	CC=-W	--_~-K~9_"3_,._S8,.	___X_S_99_6 __
_ ~tandard Servo Sta.	XIjD-310_0	XHD-4	SF	30^{0}	CCW	K 11802	X6942
Standard Servo Sta.	XHD-3200	XHD-4	HB	30^{0}	CCW	K1l802	X6942
Standard Servo Sta.	XHD-3300	XHD-6	HB	45^{0}	CCW	K 11802	X6942
_~.Qlld(lrd ~~rv, ~{(l,	XHD-3400	XHD-6	__ ~ -~~~-	4SO	--CCW	K 11802	X6942

1 When installing X5700C as a replacement coil, we recommend using an X6916 condenser and 6924 clamp.

TABLE OF VARIABLE PARTS

Condenser	Coil *See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Main Bushing	Impulse Coupling R.H.	Drive Cup	Gear	Specification
X5614	X5700C	X5777	X9564	Y5710	X6195	X6351	6349		XH-2239
X6916	X5700C	X6538	None	Y8538	X8785	X8818	8780	9070	XH-2256
X6916	X5700C	X6538	None	Y8538	X8785	X8818	8780	9070	XH-2256B
X6916	X 12609 *	X9532	X9564	Y8748	X8747	X7606	2061A		XHD-2263
X5614	X5700C	X5777	X9564	Y5710	X6195	X6260	2061A		XH-2279
X5614	X5700C	X6533	None	Y7569	X7262	X9647	2061A		XH-2286
X6916	X12609 *	X9532	X9564	Y8748	X6950	X7606	2061A		XH-2289
X6916	X12609 *	X5897	X5787	Y6913	X6950	X9663	7369	8887	XHD-2291
X6916	X7886B	X5777	X9564	Y6911	X9022	X8960	1806B		XHD-2301
X5614	X5700C	X9348	X9344	Y5710	X6195	X6515	2061A		XH-2302
X6916	X 12609	X9172	X5787	Y6913	X6950	X7368	7369		XHD-2358
X6916	X5700C	X5777	X9564	Y5710	X6195	X9924	2061A		XH-2373
X5614	X5700C	X5700	X5531	Y5761	X6170	X9645	2061A		XH-2392
X6916	X5700C	X9670	X5531	Y9661	X6150	X9658	9667		XH-2403B
X6916	X5700C	X6533	None	Y8538	X7262	X8902	2061A		XH-2412
X6916	X5700C	X5777	X9564	Y5710	X5705	X6513	2061A	9071	XH-2414
X6916	X5700C	X6533	None	Y7569	X7265	X 11129B		~ 2273 ~ 11031	XH-2477B
X69"16	X5700C	X 11640	X9564	Y5944	X6195	X7412	2061A	9071	XH-2485
X6916	X5700C	X5704	None	Y7569	X 11586	X 11531	9352		XH 2497
X5614	X5700C	X5777	X9564	'(SZIO	X6195	X6636	X6634		XH-2500
X6916	X5700C	X6533	None	Y7569	X7265	X11475	11472	7545	XH-2504
X6916	X12609*	X6533	None	Y7569	X8624	X7606	2061A		XHD-2520
X6916	X5700C	X6533	None	Y8538	X7262	X 11572	1164 1	11612	XH-2523
X6916	X5700C	X5704	None	Y8538	X 11586	X 11601	11598		XH 2525
X6916	X 128101	X7123	None	Y7569	X 7262	X7412	2061A	~ 7057 ~ 11722	XH-2531B
X6916	X5700C	X6533	None	Y7569	X 11656	X7445B	7446		XH-2533
X6916	X5700C	X6533	None	Y8538	X7260	X 12041	12040		XH-2593
X6916	X12609 *	X5777	X9564	Y6911	X6950	X7921	X6634		XHD-2600
X6916	X12609 *	X5777	X9564	Y6911	X6950	X12493	12413		XHD-2655
X6916	X 12609 *	X5777	X9564	Y6912	X6950	X 12490	12414		XHD-2656
X6916	X12609 *	X5777	X9564	Y6911	X6950	X8903	3750		XHD 2657
X6916	X12609 *	X5777	X9564	Y6912	X6950	X8568	5821		XHD-2658
X6916	X12810	X7123	None	Y7569	X7263	X5924	2061A	13284	XH-2677
X6916	X12609	X5777	X9564	Y5710	X6196	X6516	2061A	13284	XH 2686
X6916	X12609 *	X5777	X9564	Y6911	X6951	X7917	1657		XHD 2700
X6916	X12609 *	X5897	X12501	Y 13702	X 12502	X13703	13701		XHD-2752
X6916	X12609	X5704	None	Y7569	X 11586	X1l531	9352		XH-2780
X6916	X12609	X5776	X9564	Y5944	X6195	X7412	2061A		XH-2781
X6916	X12609	X5897	X5787	Y6913	X6950	X6943	X6945		XHD-2800
X6916	X12609	X1l640	X9564	Y5944	X16288	X 16571	2061A		XH-2857
X6916	X12609 *	X5897	X5787	Y6913	X6951	X6945	6953		XHD-2900
X5614	X5700C	X5777	X9564	Y5758	X6195	X6637	X6635		XH-3000
X6916	X12609 *	X5777	X9564	Y6912	X6950	X7922	X6635		XHD-3100
X6916	X12609 *	X5777	X9564	Y6912	X6951	X7918	1657		XHD-3200
X6916	X 12609 *	X5897	X5787	Y6931	X6951	X6946	6953		XHD-3300
X6916	X12609 *	X5897	X5787	Y6931	X6955	X6947	X6955		XHD-3400

~ With Wisconsin Motors magneto XH-2477B, use gear 2273 on model ABK, **AKN** engines
use gear 11031 on model ACN, **BKN** engines

~ With Wisconsin Motors Magneta XH-2531B, use gear 7057 on model TE, **TF** engines
use gear 11722 on model **TH** engines

MODEL XHE-4 AND XHE-6 MAGNETOS

This unit has been designated XHE, the E meaning external coil.

Instead of producing a high voltage within the magneto, like the XH, the XHE generates a high current low voltage. Because of the high power developed, 0.60 microfard condensers are used.

As in all commonly used ignition systems, the points time the primary voltage. The output of the magneto is then transformed to high voltage in a heavy du'ty, external, oil filled coil. The high voltage is fed to the magneto for di stri bution to spark plugs. Use of the distributor eliminates the need for seperate coi I s for each cy Ii nder.

Mechanically the XHE and XH series magneto are identical, using the same mountings, impulse, magnetic rotor, etc. Therefore, instructions for servicing XH magnetos are also applicable to XHE units.

COIL TEST DATA

For external coi I X30081 B see chart, page 2

For internal coil Xl1239, continuity is the only test necessary.

COIL AND COIL CORE

The coi I mu st be removed from the magneto housing as a unit. After removing the distributor cap, di sconnect the primary wire from the breaker arm spring terminal by removing screw 5431. Then take out the two coil core clamp screws 5411, and remove the clamps 5633. Coil and core can then be pulled from the housing. When replacing this group make sure that the bare primary wire is connected under the core clamp screw, and that the insulating wire is connected to the breaker arm spring terminal.

EXTERNAL COIL CONNECTION UNIT

A standard ground connection unit kit K6448 is used to connect the internal and external coils through the magneto generator hous ing. See ill u stration on page

WARNING: Under no condition should an outside source of current (battery, dtc.) be connected to the grounding terminal as this will seriously damage the electrical circuit of the magneto.

TABLE OF VARIABLE PARTS

Manufacturer	Spec ification	Type	Mount	Lag L.	Rotation	Mag. Assy	Contact Set	Condo
† Minn-Mol ine	XHE-2670	XHE-4	SF	35°	CW	X 12434	X12831	X 11818
† Standard Sev. Sta.	XHE-2701	XHE-4	SF	35°	CW	X12744	X12831	X11818
I nt'l. Harvester	XHE-2709	XHE-4	SF	15°	CCW	Xl2904	X12831	X11818
Standard Servo Sta.	XHE-2729	XHE-4	HB	30°	CW	X13061	X12831	Xl1818
† Buda (Allis Chalmers)	XHE-2730	XHE-4	SF	35°	CW	X13062	X12831	X 11818
† Standard Servo Sta.	XHE-2731	XHE-4	SF	20°	CW	X13066	X 12831	X 11818
J. I. Case	XHE-2751	XHE-6	SF	38°	CW	X 14404	X12831	Xl1818
Standard Servo Sta.	XHE-2768	XHE-6	HB	45°	CW	X13727	X12831	Xl1818
Standard Servo Sta.	XHE-2769	XHE-6	HB	45°	CCW	X13728	X 12831	Xl1818
Conti nental	XHE-2770	XHE-6	SF	30°	CW	X13730	X 12831	Xl1818
Waukesha	XHE-2771	XHE-6	SF	27°	CCW	X 13731	X12831	Xl1818
All i s Chal mers	XHE-2772	XHE-6	SF	52°	CW	X13729	X 12831	X 11818
Minn-Mol ine	XHE-2773	XHE-6	SF	52Y·l°	CW	X13732	X12831	X-11818
Hercules	XHE-2779	XHE-4	SF	21°	CW	X13849	X12831	X11818
Waukesha	XHE-2787 ~	XHE-6	SF	50°	CCW	X13849	X12831	X11818

† Use Conversion Kit K-400

~Gear 195219 with engines 190GLB, 195GL, 195GKA
Gear 135119 with engines 135 GKB, 135GK, 135 GZ, 135GZB

WIRING DIAGRAM

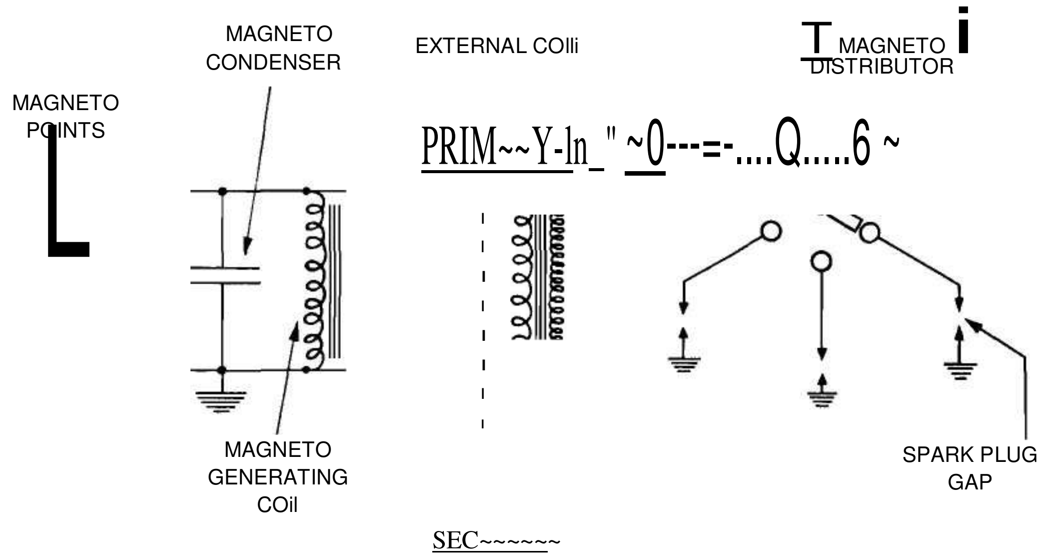
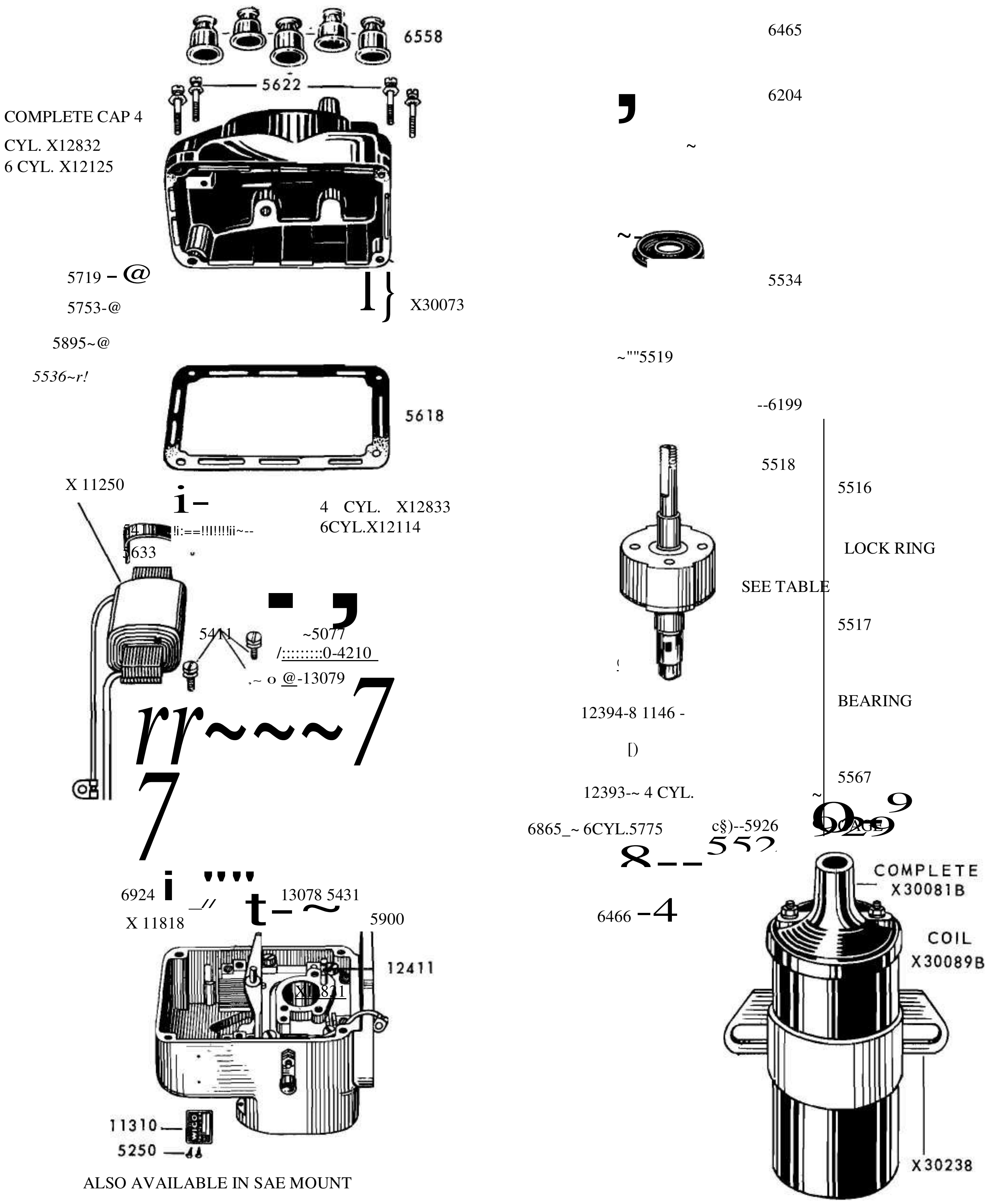


TABLE OF VARIABLE PARTS

Coil	Dist. Cop	Dist. Rotor	Mag. Rotor	Housing	Imp. C'plg.	Drive Cup	Will Replace	Specification
X30081B	X12832	X12833	Y12391	X13081	X7279	7282	XHD-1785	XHE-2670
X30081B	X12832	)(12833	Y12391	X13081	X8903	3750	XHD-1715	XHE-2701
X30081B	X12832	X12833	Y13058	X13081	X8568	5821	XHD-2214	XHE-2709
X30081B	X12832	X12833	Y 12391	X13082	X7917	1657	XHD-2700	XHE-2729
X30081B	X12832	X12833	Y12391	X13081	X7919	2061A	XHD-1992	XHE-2730
X30081B	X12832	X12833	Y12391	X 13081	X8903	3750	*	XHE-2731
X3008'I B	X12125	X12114	Y13734	X13081	X12510	12509	XHD-2585	XHE-2751
X30081B	X12125	X12114	Y13734	X13082	X6945	6953	XHD-2700	XHE-2768
X30081B	X 12125	X12114	Y13733	X13082	X6945	6953	XHD-3300	XHE-2769
X30081B	X12125	X12114	Y13734	X 13081	X7368	7369	XHD-1524	XHE-2770
X30081B	X12125	X12114	Y13733	X 13081	X8585	8567	XHD-1541	XHE-2771
X30081B	X12125	X12114	Y13734	X13081	X7368	7369	XHD-1835	XHE-2772
X30081B	X12125	X12114	Y13734	X13081	X7281	7283	XHD-1784	XHE-2773
X30081B	X12832	X12833	Y12391	X 13081	X8960	1806B	XH -1113	XHE-2779
X30081B	X12125	X12114	Y13734	X13081	X8886	7369	XHD-2291	XHE-2787

*XHE-2731 may be converted to fit many engines by installing the proper drive cup and adjusting the lag angle.

Use of Conversion Kit K-400 is recommended. See Conversion Chart S-694 for proper applications.



ALSO AVAILABLE IN SAE MOUNT

MAGNETOS XHE-2586, 2592, 2611, 2613 CONTACT THE FACTORY FOR PARTS NOT LISTED ON VARIABLE PARTS LIST.

X12151 HIGH TENSION INTERLEAD GROUP X12152 PRIMARY INTER LEAD GROUP Xl1290 GROUND LEAD GROUP

XH & XHD MAGNETO
TABLE OF VARIABLE PARTS

(FILE IN YOUR XH & XHD MANUAL SECTION)

REPLACES PAGES 11 THROUGH 16 OF YOUR XH & XHD MANUAL SECTION

XH & XHD MAGNETO

Engine Manufacturer	Specification	Type	Mounting tSee Note	Lag Angle	Rotation	Overhaul Package	Contact Set
American Farm	XH-10	XH-1	LB	10°	CCW	K9358	X5996
American Farm	XH-10B	XH-1	LB	10°	CCW	K11802	X5996
American Farm	XH-11	XHG-2	LB	10°	CCW	K9358	X5996
Cushman Motor	XH-16	XH-2	LB	10°	CW	K9358	X5996
John Deere Harvester	XH-17	XHG-4	HB	25°	CW	K9358	X5996
Le Roi	XH-19	XH-1	HB	20°	CW	K9358	X5996
Le Roi	XH-19B&C	XH-1	HB	20°	CW	K11802	X5996
Le Roi	XH-20	XHG-2	HB	20°	CW	K9358	X5996
Le Roi	XH-22	XHG-4	HB	20°	CW	K9358	X5996
Le Roi	XH-23	XHG-4	HB	20°	CCW	K9358	X5996
New Beeman Tractor	XH-29	XH-1	LB	30°	CCW	K9358	X5996
New Beeman Tractor	XH-29B	XH-1	LB	30°	CCW	K11802	X5996
American Farm	XH-32	XH-2	LB	10°	CCW	K9358	X5996
Continental Motors	XH-41	XHG-4	LB	23°	CW	K9358	X5996
Jacobsen Mfg.	XH-55	XH-1	HB	22°	CW	K9358	X5996
Stover Engine	XH-79	XH-1	LB	15°	CW	K9358	X5996
Stover Enaine	XH-79B	XH-1	LB	15°	CW	K11802	X5996
Stover Engine	XH-81	XHG-2	LB	15 °	CW	K9358	X5996
Novo Engine	XH-113	XH-2	HB	27°	CW	K9358	X5996
Novo Enaine	XH-115	XH-1	LB	19°	CW	K9358	X5996
Novo Enaine	XH-115B&C	XH-1	LB	19°	CW	K11802	X5996
Lauson	XH-131	XH-1	LB	12°	CW	K9358	X5996
Lauson	XH-131 B	XH-1	LB	12°	CW	K11802	X5996
Stover Enaine	XH-139	XHG-4	HB	15°	CW	K9358	X5996
Vauahan Motor	XH-145	XH-1	LB	25°	CW	K9358	X5996
Vauahan Motor	XH-145B&C	XH-1	LB	25°	CW	K11802	X5996
Wisconsin Motor	XH-150	XH-1	LB	29°	CCW	K9358	X5996
Wisconsin Motor	XH-150B&C	XH-1	LB	29°	CCW	K11802	X5996
Jacobsen Mfg.	XH-156	XH-2	LB	22°	CW	K9358	X5996
Vivian Enaine	XH-157	XH-1	HB	30°	CW	K9358	X5996
Vivian Engine	XH-157B	XH-1	HB	30°	CW	K11802	X5996
Le Roi	XH-169	XHG-2	HB	20°	CCW	K9358	X5996
Waukesha Motor	XH-175	XHG-4	HB	25°	CW	K9358	X5996
Standard Service Sta.	XH-184	XHG-4	HB	30°	CW	K9358	X5996
Int'l Harvester	XH-192	XH-1	WF	19°	CW	K9358	X5996
Int'l Harvester	XH-192B&C	XH-1	WF	19°	CW	K11802	X5996
Int'l Harvester	XH-212	XH.1	WF	19°	CW	K9358	X5996
Int'l Harvester	XH-212B&C	XH-1	WF	19°	CW	K11802	X5996
Wisconsin Motor	XH-241	XHG-4	HB	29°	CCW	K9358	X5996
Vaughan Motor	XH-246	XH-1	HB	25°	CW	K9358	X5996
Vauahan Motor	XH-246B	XH-1	HB	25°	CW	K11802	X5996
Stover Engine	XH-257	XHG-2	WF	15°	CW	K9358	X5996
Hercules Motors	XH-261	XHG-4	HB	15°	CW	K9358	X5996
Novo Engine	XH-264	XHG-4	HB	27°	CW	K9358	X5996
Stover Engine	XH-274	XH-1	WF	15°	CW	K9358	X5996
Stover Engine	XH-274B	XH-1	WF	15°	CW	K11802	X5996
Jacobsen Mfg.	XH-305	XH-1	HB	22°	CW	K9358	X5996
Jacobsen Mfg.	XH-305B	XH-1	HB	22°	CW	K11802	X5996
Fuller & lohnson	XH-307	XH-1	HB	12°	CW	K9358	X5996
Fuller & lohnson	XH-307B	XH-1	HB	12°	CW	K11802'	,2(5996
Cushman Motors	XH-404	XH-2	LB	10°	CCW	K9358	XS996
Le Roi	XH-414	XHG-4	HB	35°	CW	K9358	X5996
Le Roi	XH-438 --	XHG-4	SF	35°	CW	K9358	X5996
Massey-Harris	XH-456	XHG-4	HB	15°	CCW	K9358	X5996

*When installing an X5700B Coil to replace an X5700 or X6762 Coil we recommend using an X6916 Condenser and 6924 Clamp in place of the X5614 Condenser

tCode for Type of Mounting LB-Low Base, HB-High Base, HF-Horizontal Flange, SF-S.A.E. Flange, WF-Small Flange, OF-Double Slotted Flange, VM-Mounted Vertically

TABLE OF VARIABLE PARTS

Condenser	Coil 'See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Main Housing	Impulse Coupling Unit	Drive Cup	Gear	Specification
X5614	X5700B	X6533	None	Y6605	X6164	X5747	5671		XH-10
X6916	X5700B	X6533	None	Y8538	X7260	X5747	5671		XH-10B
X5614	X5700B	X5776	X9564	Y5946	X6215	X5747	5671		XH-11
X5614	X5700B	X5770	X5531	Y5761	X6358	X6157	5671		XH-16
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH-17
X5614	X5700B	X6533	None	Y6606	X6162	X6256	2084		XH-19
X6916	X5700B	X6533	None	Y7569	X7258	X6256	2078		XH-19B&C
X5614	X5700B	X5776	X9564	Y5944	X6210	X6256	2078		XH-20
X5614	X5700B	X5777	X9564	Y5710	X621 0	X6261	2078		XH-22
X5614	X5700B	X5777	X9564	Y5758	X6210	X6262	2078		XH-23
X5614	X5700B	X6533	None	Y6605	X6166	X5747	5611		XH-29
X6916	X5700B	X6533	None	Y8538	, X7261	X5747	5671		XH-29B
X5614	X5700B	X5770	X5531	Y5594	X6165	X6024	5671		XH-32
X5614	X5700B	X5777	X9564	Y5710	X6214	X6157	5671		XH-41
X5614	X5700B	X6533	None	Y6606	X6163	X6254	1657		XH-55
X5614	X5700B	X6533	None	Y6606	X6166	X5915	5671		XH-79
X6916	X5700B	X6533	None	Y7569	X7261	X5915	5671		XH-79B
X5614	X5700B	X5776	X9564	Y5944	!X6215	X5915	5671		XH-81
X5614	X5700B	X5770	X5531	Y5761	X6158	X6258	1657		XH-113
X5614	X5700B	X6533	None	Y6606	X6164	X5915	5671		XH-115
X6916	X5700B	X6533	None	Y7569	X7260	X5915	5671		XH-115B&C
X5614	X5700B	X6533	None	Y6606	X6166	X5915	5671		XH-131
X6916	X5700B	X6533	None	Y7569	. X7261	X5915	5671		XH-131 B
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH-139
X5614	X5700B	X6533	None	Y6606	IX6164	X5915	5671		XH-145
X6916	X5700B	X6533	None	Y7569	X7260	X5915	5671		XH-145B&C
X5614	X5700B	X6533	None	Y6605	X6159	X5747	5671		XH-150
X6916	X5700B	X6533	None	Y8538	X7257	X5747	5671		XH-150B&C
X5614	X5700B	X5770	X5531	Y5761	X6358	X6157	5671		XH-156
X5614	X5700B	X6533	None	Y6606	X6163	X6254	1657		XH-157
X6916	X5700B	X6533	None	Y7569	X7259	X6254	1657		XH-157B
X5614	X5700B	X5776	X9564	Y5946	X6210	X6263	2078		XH-169
X5614	X5700B	X5777	X9564	Y5710	X621 0	X6258	1657		XH-175
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH-184
X5614	X5700B	X6533	None	Y6606	X6479	X6415	2061 A	6427	XH-192
X6916	X5700B	X6533	None	Y7569	X7266	X6415	2061 A	6427	XH-192B&C
X5614	X5700B	X6533	None	Y6606	X6479	X6416	2061 A	6426	XH-212
X6916	X5700B	X6533	None	Y7569	X7266	X6416	2061 A	6426	XH-212B&C
X5614	X5700B	X5777	X9564	Y5758	X6213	X6250	4203		XH-241
X5614	X5700B	X6533	None	Y6606	X6162	X6254	1657		XH-246
X6916	X5700B	X6533	None	Y7569	X7258	X6254	1657		XH-246B
X5614	X5700B	X5776	X9564	Y5944	X6197	X6622	6621		XH-257
X5614	.X5700B	X5777	X9564	Y5710	X6212	X6258	1657		XH-261
X5614	X5700B	X5777	X9564	Y5710	X6210	X6258	1657		XH-264
X5614	X5700B	X6533	None	Y6606	X6174	X6622	None		XH-274
X6916	X5700B	X6533	None	Y7569	X7265	X6622	6621		XH-274B
X5614	X5700B	X6533	None	Y6606	X6163	X6254	1657		XH-305
X6916	X5700B	X6533	None	Y7569	X7259	X6254	1657		XH-305B
X5614	X5700B	X6533	None	Y6606	X6162	X6254	1657		XH-307
X6916	IX5700B	X6533	None	Y7569	X7258	X6254	1657		XH-307B
X5614·	X5700B	X5770	X5531	Y5594	X6358	X6024	5671		XH-404
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH-414
X5614	X5700B	X5777	X9564	Y5710	X6198	X6080	6078		XH-438
X5614	X5700B	X5777	X9564	Y5758	X6209	X6259	1657		XH-456

XH & XHD MAGNETO

Engine ManuFacturer	SpeciFication	Type	Mounting tSee Note	Lag Angle	Rotation	Overhaul Package	Contact Set
Massey-Harris	XH-451	XHG-6	HB	30°	CCW	K9358	X5996
Hercules Motors	XH-469	XHG-6	HB	25°	CCW	K9358	X5996
Hercules Motors	XH-413	XHG-4	HB	15°	CCW	K9358	X5996
J. Deere Waterloo	XH-411	XH-2	SF	35°	CCW	K9358	X5996
Continental Motors	XH-494	XHG-4	SF	20°	CW	K9358	X5996
Standard Service Sta.	XH-514	XHG-2	LB	30°	CCW	K9358	X5996
Standard Service Sta.	XH-520	XHG-4	HB	35°	CW	K9358	X5996
Standard Service Sta.	XH-522	XHG-4	HB	35°	CCW	K9358	X5996
Standard Service Sta.	XH-524	XHG-6	HB	40°	CW	K9358	X5996
Standard Service Sta.	XH-556	XH-1	LB	25°	CW	K9358	X5996
Standard Service Sta.	XH-556B&C	XH-1	LB	25°	CW	K11802	X5996
Standard Service Sta.	XH-557	XH-1	LB	25°	CCW	K9358	X5996
Standard Service Sta.	XH-557B&C	XH-1	LB	25°	CCW	K11802	X5996
Standard Service Sta.	XH-564	XHG-4	LB	25°	CW	K9358	X5996
Standard Service Sta.	XH-565	XHG-4	LB	25°	CCW	K9358	X5996
Le Roi	XH-623	XHG-4	SF	20°	CW	K9358	X5996
Buda	XH-631	XHG-6	HB	40°	CW	K9358	X5996
Le Roi	XH-633	XHG-4	SF	20°	CCW	_1~3_~	X5996
Le Roi	XH-635	XHG-2	SF	20°	CW	K9358	X5996
Le Roi	XH-636	XHG-2	SF	20°	CCW	K9358	X5996
Cooper-Bessemer	XHD-685	XHD-2	HB	37°	CW	K11802	X6942
Waukesha Motor	XH-731	XHG-4	HB	17°	CW	K935_8_	f-~599()
Waukesha Motor	XH-732	XHG-4	HB	20°	CW	K9358	X5996
Waukesha Motor	XH-733	XHG-6	HB	30°	CW	K9358	X5996
Waukesha Motor	XH-734	XHG-4	HB	22°	CW	K9358	X5996
Novo Engine	XH-787	XH-1	SF	17°	CW	K9358	X5996
Novo Engine	XH-787B	XH-1	SF	17°	CW	K11802	X5996
Wisconsin Motor	XH-791	XH-1	WF	29°	CW	K9358	X5996
Wisconsin Motor	XH-791B&C	XH-1	WF	29°	CW	K11802	X5996
Waukesha Motor	XH-870	XHG-4	HB	15°	CW	K9358	X5996
J. Deere Harvester	XH-873	XHG-4	HB	15°	CW	K9358	X5996
Buda Company	XH-887	XHG-4	HB	25°	CW	K9358	X5996
Standard Service Sta.	XH-984	XHG-4	HB	30°	CW	K9358	X5996
J. Deere Dubuque	XH-909	XH-2	DF	20°	CW	K9358	X5996
Allis-Chalmers	XHD-919	XHD-4	SF	30°	CCW	K11802	X6942
Novo Engine	XH-926	XH-2	SF	17°	CW	K9358	X5996
Stover Engine	XH-936	XH-1	WF	15°	CW	K9358	X5996
Stover Engine	XH-936B	XH-1	WF	15°	CW	K11802	X5996
Wisconsin Motor	XH-951	XH-1	WF	29°	CW	K9358	X5996
Wisconsin Motor	XH-951 B	XH-1	WF	29°	CW	K11802	X5996
Int'l Harvester	XH-960	XHG-4	SF	14°	CW	K9358	X5996
Wisconsin Motor	XH-962	XHG-4	HB	29°	CW	K9358	X5996
Hercules Motors	XH-970	XH-2	DF	10°	CW	K9358	X5996
Wisconsin Motor	XH-973	XH-1	LB	29°	CCW	K9358	X5996
Wisconsin Motor	XH-973B	XH-1	LB	29°	CCW	K11802	X6942
Continental Motors	XH-911	XHG-6	SF	45°	CW	K9358	X5996
Waukeska Motors	XH-980	XHG-4	HB	25°	CW	K9358	X5996
Waukesha Motors	XH-1007	XHG-4	HB	22°	CW	K9358	X5996
Allis-Chalmers	XH-1022	XHG-4	SF	30°	CCW	K9358	X5996
Continental Motors	XH-1023	XHG-4	SF	20°	CW	K9358	X5996
J. Deere Waterloo	XH-1042	XH-2	SF	25°	CCW	K9358	X5996
Waukesha Motors	XH-1053	XHG-4	SF	25°	CW	K9358	X5996
Stover Enaine	XH-1059	XHG-2	WF	1-5°	CW	K9358	X5996
Gravely Motor	, XH-1072	XH-1	HB	12°	CW	K9358	X5996 •

*When installing an X5700B Coil to replace an X5700 or X6762 Coil we recommend using an X6916 Condenser and 6924 Clamp in place of the X5614 Condenser

tCode For Type of Mounting LB-Low Base, HB-High Base, HF-Horizontal Flange, SF-S.A.E. Flange, WF-Small Flange, DF-Double Slotted Flange, VM-Mounted Vertically

TABLE OF VARIABLE PARTS

Condenser	Coil *See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Main Housing	Impulse Coupling Unit	Drive Cup	Gear	Specification
X5614	X5700B	X5897	X5787	Y5758	X6209	X6259	1657		XH·457
X5614	X5700B	X5897	X5787	Y5758	X6209	X6259	1657		XH·469
X5614	X5700B	X5777	X9564	Y5758	X6209	X6259	1657		XH·473
X5614	X5700B	X5651	X5617	Y5594	X6500	X6270	3744		XH·477
X5614	X5700B	X5777	X9564	Y5710	X6195	X6080	6078		XH·494
X5614	X5700B	X5776	X9564	Y5946	X6214	X5747	5671		XH·514
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH·520
X5614	X5700B	X5777	X9564	Y5758	X6209	X6259	1657		XH·522
X5614	X5700B	X5897	X5787	Y6483	X6209	X6258	1657		XH·524
X5614	X5700B	X6533	None	Y6606	X6166	X5915	5671		XH·556
X6916	X5700B	X6533	None	Y7569	X7261	X5915	5671		XH·556B&C
X5614	X5700B	X6533	None	Y6605	X6166	X5747	5671		XH·557
X6916	X5700B	X6533	None	Y8538	X7261	X5747	5671		XH·557B&C
X5614	X5700B	X5777	X9564	Y5710	X6214	X6157	5671		XH·564
X5614	X5700B	X5777	X9564	Y5758	X6214	X6024	5671		XH·565
X5614	X5700B	X5777	X9564	Y5710	X6198	X6257	1806B		XH·623
X 56L4	X 5 700B	X5897	X5787	Y6483	X6209	X6258	1657		XH·631
X5614	X5700B	X5777	X9564	Y5758	X6198	X6264	1806B		XH·633
X5614	X5700B	X5776	X9564	Y5944	X6198	X6265	1806B		XH·635
X5614	X5700B	X5776	X9564	Y5946	X6198	X6266	1806B		XH·636
X6916	X6936B	X5776	X9564	Y8748	X6951	X8897	1657		XHO·685
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH·731
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH·732
X5614	X5700B	X5897	X5787	Y5710	X6209	X6258	1657		XH·733
X5614	X5700B	X5777	X9564	Y5710	X6210	X6258	1657		XH·734
X5614	X5700B	X5704	None	y{>Q_Q	X6169	X6265	1806B		XH·787
X6916	X5700B	X5704	None	Y7569	X7262	X6265	1806B		XH·787B
X5614	X5700B	X5633	None	Y6606	X6173	X6459	2040	2273	XH·791
X6916	X5700B	X6533	None	Y7569	X7264	X6459	2040	2273	XH·791B&C
X5614	X5700B	X5777	X9564	Y5710	X6210	X6258	1657		XH·870
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH·873
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH·887
X5614	X5700B	X5777	X9564	Y5710	X6195	X6267	2361		XH·984
X5614	X5700B	X5770	X5531	Y5761	X6501	X6458	2040	4148	XH·909
X6916	X6936B	X5777	X9564	Y6912	X6950	X8569	5821		XHO·919
X5614	X5700B	X5770	X5531	Y5761	X6170	X6257	1806B		XH·926
X5614	X5700B	X6533	None	Y6606	X6174	X6254	1657		XH·936
X6916	X5700B	X6533	None	Y7569	X7265	X6254	1657		XH·936B
X5614	X5700B	X6533	None	Y6606	X6173	X6457		2273	XH·951
X6916	X5700B	X6533	None	Y7569	X7264	X6457	2040	2273	XH·951 B
X5614	X5700B	X5777	X9564	Y5710	X6195	X6260	2061 A		XH·960
X5614	X5700B	X5777	X9564	Y5710	X6213	X6249	4203		XH·962
X5614	X5700B	X5770	X5531	Y5761	X6172	X6458	2040	5222	XH·970
X5614	X5700B	X6533	None	Y6605	X6164	X5747	5671		XH·973
X6916	X5700B	X6533	None	Y8538	X7257	X5747	5671		XH·973B
X5614	X5700B	X5897	X5787	Y6483	X6195	X6255	3750		XH·977
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH·980
X5614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH·1007
X5614	X5700B	X5777	X9564	Y5758	X6195	X6253	2061B		XH·1022
X5614	X5700B	X5777	X9564	Y5710	X6195	X6260	2061 A		XH·1023
X5614	X5700B	X565t.	X5617	Y5594	X6500	X6378	6274		XH·1042
X5614	X5700B	X5777	X9564	Y5710	X6195	X6458	2040	4467	XH.1053
X5614	X5700B	X5776	X9564	Y5944	X6197	X6254	1657		XH·1059
X5614	X5700B	X6533	None	Y6606	X6163	X6254	1657		XH-1072

XH & XHD MAGNETO

Engine Manufacturer	Specification	Type	Mounting tSee Note	Lag Angle	Rotation	Overhau ' Package	Contact Set
Gravely Motor	XH-1072B&C	XH-1	HB	12°	CW	K11802	X6942
D.W.Onan	XH-1088	XHG-2	HB	25°	CCW	K9358	X5996
Oliver Corp.	XH-1113	XHG-4	SF	21 °	CW	K9358	X5996
Oliver Corp.	XH-1128	XHG-4	HB	28°	CCW	K9358	X5996
J. Deere Harvester	XH-1131	XHG-6	HB	25°	CCW	K9358	X5996
National Supply	XHD-1136	XHD-2	SF	35°	CCW	K11802	X6942
Hercules Motor	XH-1137	XHG-4	SF	21 °	CW	K9358	X5996
American Farm	XH-1140	XH-2	HB	10°	CCW	K9358	X5996 -
American Farm	XH-1141	XH-1	HB	10°	CCW	K9358 -	X5996
American Farm	XH-1141B	XH-1	HB	10°	CCW	K9358	X5996
Hercules Motors	XH-1142	XHG-4	HB	15°	CW	K9358	X5996
Avery Farm	XH-1163	XHG-4	HB	20°	CW	K9358	X5996
Hercules Motors	XH-1166	XH-2	DF	10°	CW	K9358	X5996
Avery Farm	XH-1180	XHG-4	HB	20°	CCW	K9358	X5996
Cushman Motors	XH-1215	XH-2	LB	25°	CCW	K9358	X5996
Fate Root Heath	XH-1222	XHG-4	SF	15°	CW	K9358	X5996
Blaw Knox	XH-1261	XHG-4	HB	15°	CW	K9358	X5996
J. Deere Waterloo	XH-1263	XH-2	HB	35°	CCW	K9358	X5996
Cushman Motor	XH-1277	XH-1	LB	10°	CCW	K935JJ	X599O
Cushman Motor	XH-1277B	XH-1	LB	10°	C(W	K11802	X6942
Massey-Harris	XH-1280	XHG-4	HB	25°	CW	K9358	X5996
Novo Enaine	XH-1283	XH-1	SF	17°	CCW'	K9358	X5996
Novo EnQine	XH-1283B	XH-1	SF	17°	CCW	K11802	X6942
Wisconsin Motor	XH-1292	XH-2	WF	29°	CW	K9358	X5996
Wisconsin Motor	XH-1295	XH-1	WF	29°	CW	K9358	X5996
Wisconsin Motor	XH-1295B	XH-1	WF	29°	CW	K9358	X5996
Wisconsin Motor	XH-1295C	XH-1	WF	29°	CW	K11802	X5996
Wisconsin Motor	XH-1295D	XH-1	WF	29°	CW	K11802	X5996
Wisconsin Motor	XH-1295Y	XH-1	WF	29°	CW	K9358	X5996
Wisconsin Motor	XH-1297	XH-1	WF	29°	CW	K9358	X5996
Wisconsin Motor	XH-1297B	XH-1	WF	29°	CW	K11802	X6942
J. Deere Waterloo	XH-1300	XH-2	SF	35°	CCW	K9358	X5996
Novo Enaine	XH-1308	XH-1	SF	17°	CW	K9358	X5996
Novo Enaine	XH-1308B	XH-1	SF	17°	CW	K11802	X6942
Novo Enaine	XH-1309	XHG-4	SF	20°	CW	K9358	X....5.22
Novo Enaine	XH-1310	XH-2	SF	20°	CW	K9358	X__5226
Weber Enaine	XHD-1320	XHD-2	SF	29°	CW	K11802	X6942
Cockshutt Plow	XH-1325	XHG-4	SF	21 °	CW	K9358	X5996
Wisconsin Motor	XH-1343	XH-4	SF	29°	CW	K9358	X5996
Int'I Harvester ‹	XH-1344	- XHG-4	SF	35°	CW	K9358	X5996
National Supply •	XHD-1350	XHD-2	SF	35°	CW	K11802	X6942
Continental Motors •	XH-1354	XHG-4	SF	20°	CW	K9358	X5996
Minneapolis-Moline~	XHD-1379	XHD-6	SF	52°	CW	K11802	X6942
Wisconsin Motors	XH-1438	XH-2	SF	29°	CW	K9358	X_S226_
J. I. Case	XH-1449	XHG-4	SF	30°	CW	K9358	X5996
Blaw-Knox	XH-1454	XHG-6	HB	25°	CCW	K9358	X_S226_
Massev-Harris Ltd .•	XH-1515	XHG-4	SF	20°	CYi	K_93_5_8	_X5_296_
Continental Motors •	XHD-1524	XHD-6	SF	30°	CW	K11802	X6942
WorthinQton Pump •	XH-1535	XHG-4	SF	15°	CW	K9358	X5996
Waukesha Motors	XHD-1541	XHD-6	SF	27°	CCW	K11802	X6942
Hercules Motors	XH-1572	XHG-4	HB	25°	CCW	K9358	X5996
United States Motors'	XH-1593	XH-2	DF	10°	CW	K9358	X5996
B. F. Averv & Sons -	XH-1604	XHG-4	SF	21 °	CW	K9358	X5996
Continental Motors •	XH-1648	XHG-4	SF	' 15°	CW	K9358	X5996

*When installing an X5700B Coil to replace an X5700 or X6762 Coil we recommend using an X6916 Condenser and 6924 Clamp in place of the X5614 Condenser

tCode For Type of Mounting LB-Low Base, HB-High Base, HF-Horizontal Flange, SF-S.A.E. Flange, WF-Small Flange, ~, OF-Double Slotted Flange, VM-Mounted Vertically

TABLE VARIABLE PARTS

Condenser	Coil *See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Main Housing	Impulse Coupling Unit	Drive Cup	Gear	Specification
X6916	X5700B	X6533	None	Y7569	X7259	X6254	1657		XH-1072B&C
XS614	XS700B	XS776	X9S64	YS946	X6209	X62S2	1657		XH-1088
X5614	X5700B	X5777	X9564	Y5710	X6195	X6257	1806B		XH-1113
X5614	X5700B	X5777	X9564	Y5758	X6209	X6259	1657		XH-1128
XS614	XS700B	XS897	XS787	YS758	X6209	X62S9	1657		XH-1131
X6916	X6936	X5776	X9564	Y8904	X6950	X8902	~1A		XHD-1136
XS614	X5700B	X5777	X9564	Y5710	X619S	X62S7	1806B		XH 1137
X5614	X5700B	X5770	X5531	Y5594	X6160	X6259	1657		XH-1140
XS614	XS700B	X6S33	None	Y660S	X6162	X62S3	1657		XH-1141
X6916	XS700B	X6S33	None	Y8S38	X72S8	X62S2116S7			XH-1141B
XS614	XS700B	XS777	X9S64	YS710	X6209	X62S8 !16S7			XH-1142
X5614	XS700B	XS777	X9564	YS710	X6209	X62S8 ¡ 1657			XH-1163
X5614	XS700B	X5770	X5S31	Y5761	X6172	X6458 '2040		5083	XH-1166
XS614	X5700B	XS777	X9564	YS758	X6209	X6259	1657		XH-1180
X5614	XS700B	XS770	X5531	YSS94	X616S	X6024	5671		XH-121S
XS614	XS700B	XS777	X9564	YS710	X619S	X6260	2061 A		XH-1222
XS614 .	XS700B.	XS777	X9S64	YS710	X6209	X62S8	1657		XH-1261
XS614	X5700B	X5651	XS531	Y5594	X61S8	X6271	4702		XH-1263
XS614	XS700B	X6S33	None	Y660S	X6166	XS747	5671		XH-1277
X6916	X5700B	X6533	None	Y8538	X7261	XS747	5671		XH-1277B
XS614	X5700B	X5777	X9564	Y5710	X6209	X6258	1657		XH-1280
XS614	X5700B	XS704	None	Y660S	X6169	X6612	None	3835	XH-1283
X6916	X5700B	X5704	None	Y8538	X7262	X6612	2061 A	3835	XH-1283B
XS614	X5700B	X5770	X5531	YS761	X6464	X64S8	2040		XH-1292
X5614	X5700B	X6533	None	Y6606	X6174	X6459	2040	2273	XH-129S
X5614	X5700B	*X6533*	None	Y6606B	X6174	X6459	2040	2273	XH-1295B
X6916	X5700B	X6533	None	Y7569	X7265	X6459	2040	2273	XH-1295C
X6916	X5700B	X6533	None	Y7569	X7265	X6459	2040	2273	XH-1295D
X5614	X5700B	X7114	None	Y6606	X6174	X6459	2040	2273	XH-1295Y
X5614	X5700B	X6533	None	Y6606	X6174	X6457	None	2273	XH-1297
X6916	X5700B	X6533	None	Y7569	X7265	X6457	2040	2273	XH-1297B
X5614	XS700B	X5651	X5617	Y5594	X6500	X6272	3565		XH-1300
X5614	XS700B	XS704	None	Y6606	X6169	X6460	2061 A		XH-1308
X6916	X5700B	X5704	None	Y7569	X7262	X6460	2061 A		XH-1308B
X5614	X5700B	X5777	X9564	Y5710	X6195	X6269	2061 A		XH-1309
X5614	X5700B	X5770	X5531	Y5761	X6170	X6269	2061 A		XH-1310
X6916	X6936	X5776	X9564	Y8748	X6950	X8894	6078		XHD-1320
X5614	X5700B	*X5777*	X9564	Y5710	X6195	X6257	1806B		XH-1325
X5614	X5700B	*X5653*	X5531	Y5560	X6150	X6455	6310	3956	XH-1343
XS614	X5700B	X5777	X9564	YS710	X6195	X6255	3750		XH-1344
X6916	X6936B	X5776	X9564	Y8748	X69S0	X8894	6078		XHD-13S0
XS614	X5700B	XS777	X9564	YS710	X6195	X6260	2061 A		XH-1354
X6916	X6936B	XS897	XS787	Y6913	X69S0	X7280	7284		XHD-1379
XS614	X5700B	XS770	XSS31	Y5761	X6170	X6516	2061 A	3956	XH-1438
XS614	XS700B	XS777	X9564	Y5710	X6195	X6267	2361		XH-1449
X5614	X5700B	X5897	XS787	Y5758	X6209	X6259	1657		XH-1454
· XS614	XS700B	XS777	X9S64	YS710	*X6195*	X6260	2061 A		XH-1515
X6916	X6936B	X5897	X5787	Y6913	X69S0	X7368	7369		XHD-1S24
· XS614	X5700B	XS777	X9564	'Y5710	X6195	X6257	1806B		XH-1S35
, X6916	X6936B	*X5897*	X5787	Y6931	X6950	X8585	8567		XHD-1541
• X5614	XS700B	X5777	X9S64	YS7S8	X6209	X6259	1657		XH-1572
X5614	XS700B	X5770	XSS31	YS761	X6172	X6458	2040	5083	XH-1593
XS614	X5700B	XS777	X9S64	YS710	X619S	X62S7	1806B		XH-1604
XS614	,X5700B	XS777	X9564	YS710	X619S	X6260	2061 A		XH-1648

XI-I & XHD MAGNETO

Engine Manufacturer	Specification	Type	Mounting tSee Note	Lag Angle	Rotation	Overhaul Package	Contact Set
Easthope Bros.	XH-1686	XH-2	HB	30°	CCW	K9358	X5996
Buda	XH-1714	XHG-4	SF	35°	CW	K9358	X5996
Int'l Harvester	XHD-1715	XHD-4	SF	35°	CW	K11802	X6942
Buda	XH-1733	XHG-6	SF	52°	CW	K9358	X5996
Cushman Motor	XH-1748	XH-2	LB	25°	CW	K9358	X5996
Standard Service Sta.	XH-1769	XHG-4	SF	15°	CCW	K9358	X5996
Minneapolis Moline	XHD-1784	XHD-6	SF	52°	CW	K11802	X6942
Minneapolis Moline	XHD-1785	XHD-4	SF	35°	CW	K11802	X6942
Wisconsin Motor	XH-1806	XHG-2	SF	29°	CW	K9358	X5996
Buda	XHD-1835	XHD-6	SF	52°	CW	K11802	X6942
Worthington Pump	XH-1869	XHG-4	SF	15°	CW	K9358	X5996
J. Deere Waterloo	XH-1886	XH-2	SF	12°	CW	K9358	X5996
Caterpillar Tractor	XH-1906	XHG-2	SF	32°	CCW	K9358	X5996
Caterpi liar Tractor	XH-1907	XHG-2	HF		CCW	K9358	X5996
Caterpillar Tractor	XH-1908	XHG-2	HF	30°	CW	K9358	X5996
Continental Motors	XH-1909	XHG-6	SF	35°	CW	K9358	X5996
Minneapolis-Moline	XH-1916	XHG-4	SF	25°	CW	K9358	X5996
Ford Motor	XH-1917	XH-4	SF		CW	K9358	X5996
Le Roi	XH-1921	XH-2	SF	20°	CCW	K9358	X5996
JI. Case	XH-1950	XH-2	SF	25°	CW	K9358	X5996
Le Roi	XH-1951	XH-2	SF	20°	CW	K9358	X5996
Wisconsin Motors	XH-1961	XH-2D	SF	29°	CW	K11802	X6942
Wisconsin Motors	XH-1961B	XH-2D	SF	29°	CW	K11802	X6942
Wisconsin Motors	XH-1961C	XH-2D	SF	29°	CW	K11802	X6942
Buda	XHD-1992	XHD-4	SF	35°	CW	K11802	X6942
Le Roi	XH-1993	XHG-4	SF	35°	CW	K9358	X5996
Ford Motor	XH-1994	XH-4	SF	30°	CW	K9358	X5996
Wisconsin Motors	XH-1995	XH-1	WF	29°	CW	K11802	X6942
Wisconsin Motors	XH-1995B	XH-1	WF	29°	CW	K11802	X6942
Minneapolis Moline	XH-2002	XHG-6	SF	35°	CW	K9358	X5996
Kohler	XH-2006	XHG-4	SF	20°	CW	K9358	X5996
Buda	XH-2012	XHG-4	SF	45°	CW	K9358	X5996
Harley-Davidson	XH-2017	XH-2	LB		CCW	K11802	X6942
Harley-Davidson	XH-2017B	XH-2	LB		CCW	K11802	X6942
Continental Motors	XH-2023	XHG-6	SF	25°	CW	K9358	X5996
Kohler	XH-2043	XHG-4	HB		CW	K9358	X5996
Gravelv Tractor	XH-2049	XH-1	LB	10°	CW	K11802	X6942
Gravely Tractor	XH-2049B	XH-1	LB	10°	CW	K11802	X6942 .
Palmer Bros.	XH-2059	XH-1	DF	30°	CCW	K9358	X5996·
Palmer Bros.	XH-2059B	XH-1	DF	30°	CCW	K11802	X6942 -
Palmer Bros.	XH-2059C	XH-1	DF	30°	CCW	K11802	X6942
Kohler	XH-2062	XH-2D	SF	20°	CW	K11802	_)'«(>~4L
Kohler	XH-2062B	XH-2D	SF	20°	CW	K11802	X6942
Oliver Corp.	XH-2075	XHG-6	SF	35°	CW	K9358	X5996
Minneapolis-Moline	XHD-2079	XHD-4	SF	25°	CW	K11802	X6942
Le Roi	XHD-2080	XHD-1	SF	20°	CW	K11802	X6_94~_
Clark Enaine	XH-2081	XH-1	WF	29°	CW	K9358	X5996
Clark Engine	XH-2081B	XH-1	WF	29°	CW	K11802	X6942
Kermath MfQ.	XH-2092	XHG-6	SF	35°	CW	K9358	X5996
Buda	XH-2098	XHG-4	SF	20°	CW	K9358	X5996
Harley-Davidson	XH-2108	XH-2	WF		CCW	K9358	X5996
Le Roi	XH-2113	XHG-4	SF	20°	CW	K9358	X5996-
Le Roi	XH-2114	XHG-4	SF	35°	CW	K9358	X59Q6
Hercules Motors	XH-2115	XHG-4	SF	21 °	CCW	K9358._J<~_996	

*When installing an X5700B Coil to replace an X5700 or X6762 Coil we recommend using an X6916 Condenser and 6924 Clamp in place of the X5614 Condenser

tCode for Type of Mounting LB-Low Base, HB-High Base, HF-Horizontal Flange, SF-S.A.E. Flange, WF-Small Flange, OF-Double Slotted Flange, VM-Mounted Vertically

TABLE OF VARIABLE PARTS

Condenser	Coil *See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Main Housing	Impulse Coupling Unit	Drive Cup	Gear	Specification
X5614	X5700B	X5770	X5531	Y5594	X6158	X6259	1657		XH-1686
X5614	X5700B	X5777	X9564	Y5710	X6195	X6260	2061 A		XH-1714
X6916	X6936B	X5777	X9564	Y6911	X6950	X8903	3750		XHD-1715
~ X5614	X5700B	XS897	XS787	Y6483	X6195	X625S	3750		XH-1733
- X5614	X5700B	X5770	X5531	Y5761	X6195	X6157	5671		XH-1748
- X5614	X5700B	X5777	X9564	Y5758	X6195	X6251	5821		XH-1769
X6916	X6936B	XS897	X5787	Y6913	X6950	X7281	7283		XHD-1784
X6916	X6936B	X5777	X9S64	Y6911	X6950	X7279	7282		XHD-1785
X5614	X5700B	X5776	X9564	Y5944	X6195	X6454	2061 A	7057	XH-1806
X6916	X6936B	X5897	X5787	Y6913	X6950	X7368	7369		XHD-1835
X5614	X5700B	X5777	X9564	Y5710	X619S	X6260	2061 A		XH-1869
, X5614	XS700B	X56S1	XS617	YS761	X6S00	X63S1	6349		XH-1886
X5614	XS700B	X6S26	X9564	YS7S8	X6195	X6436	6429		XH-1906
X5614	XS700B	X5776	X9S64	YS946	X71S3	None	None	6440	XH-1907
- X5614	XS700B	X5776	X9S64	YS944	X71S3	X6437	6428		XH-1908
X5614	XS700B	X5897	XS787	YS710	X619S	X6260	2061 A		XH-1909
X5614	X5700B	X5777	X9564	Y5710	X6195	X6966	2361		XH-1916
X5614	X5700B	XS6S3	XS531	Y5S60	X6150	None	None		XH-1917
X5614	XS700B	X5770	XS531	Y5S94	X6628	X64S1	2061 A		XH-1921
XS614	XS700B	X5777	X9S64	YS710	X6195	X62SS	3750		XH-19S0
X5614	X5700B	X5770	X5S31	Y5761	X6628	X6260	2061 A		XH-1951
X6916	X11600	X7123	None	Y7569	X7262	X7412	2061 A	70S7	XH-1961
X6916	X11600	X7123	None	Y7S69	X8S53	X7412	2061 A	7057	XH-1961B
X6916	X11600	X7123	None	Y7S69	X8553	X7412	2061 A	7057	XH-1961C
X6916	X6936	XS777	X9564	Y6911	X6950	X7919	2061 A		XHD-1992
XS614	XS700B	X5777	X9564	Y5710	X6198	X6257	1806B		XH-1993
X5614	X5700B	X5653	X5531	Y5560	X6150	X6855	6310		XH-1994
X6916	X5700B	X6533	None	Y7569	X7265	X6459	2040	7545	XH-1995
X6916	X5700B	X6533	None	Y7569	X7265	X6459	2040	7545	XH-1995B
X5614	X5700B	XS897	X5787	Y5710	X6195	X6260	2061 A		XH-2002
XS614	XS700B	X7064	X9S64	Y5710	X6195	X6458	2040	7132	XH-2006
X5614	X5700B	X5777	X9S64	Y6483	X6195	X6255	3750		XH-2012
X6916	X5700B	X5770	XS531	Y6918	X6358	None	None		XH-2017
X6916	X5700B	X5770	X5531	X6918	X6358	None	None		XH-2017B
XS614	X5700B	X5897	X5787	Y5710	X6195	X6260	2061 A		XH-2023
X5614	X5700B	X5777	X9564	Y7080	X7081	None	None		XH-2043
X6916	X5700B	X6533	None	Y7569	X7260	X7445	7446		XH-2049
. X6916	X5700B	X6533	None	Y7569	X7260	X7445	7446		XH-2049B
X5614	X5700B	X6533	None	Y6605	X6171	X9374	2061B		XH-2059
X6916	XS700B	X6533	None	Y8538	X7263	X9374	20MB		XH-2059B
X6916	X5700B	X6533	None	Y8538	X7263	X9374	2061B		XH-2059C
X6916	X11600	X7123	None	Y7569	X7262	X7412	2061 A	9071	XH-2062
X6916	X11600	X7123	None	Y7569	X7262	X7412	2061 A	9071	XH-2062B
X5614	XS700B	X5897	X5787	Y5710	X6195	X6260	2061 A		XH-2075
X6916	X6936	XS777	X9564	Y6911	X6950	X7979	2361		XHD-1079
X6916	X6936B	X6533	None	Y7569	X8624	X7606	2061 A		XHD-2080
XS614	X5700B	X6533	None	Y6606	X7276	X6459	2040		XH-2081
X6916	X5700B	X6S33	None	Y7S69	X7277	X64S9	2040		XH-2081 B
X5614	XS700B	X5897	XS787	YS710	X6195	X64S8	2040		XH-2092
X5614	X5700B	X5777	X9564	Y5710	X6195	X6260	2061A		XH-2098
XS614	XS700B	XS770	X5531	Y6918	X8740	None	None		XH-2108
X5614	X5700B	X5777	X9564	Y5710	X6198	X6260	2061 A		XH-2113
X5614	X5700B	X5777	X9564	Y5710	X6198	X6260	2061 A		XH-2114
X5614	X5700B ,	X5777	X9564	Y5758	X6195	X6264	1806B		XH-2115

XH & XHD MAGNETO

Engine ManuFacturer	SpeciFication	Type	Mounting tSee Note	Lag Angle	Rotation	Overhaul Package	Contact Set
Wayne Mfg.	XH-2116	XH-1	WF	20°	CW	K11802	X6942
Waukesha Motor	XHD-2134	XHD-4	SF	25°	CW	K11802	X6942
Kohler	XH-2138	XHG-4	SF	20°	CW	K9358	X5996
Palmer Bros.	XH-2148	XH-2	HB	2r	CCW	K9358	X5996
Hobart	XH-2164	XHG-4	HB	15°	CW	K11802	X6942
D.W.Onan	XH-2168	XHG-2	HB	25°	CCW	K9358	X5996
Le Roi	XH-2175	XHG-4	SF	20°	CCW	K9358	X5996
Witte Engine	XHD-2192	XHD-1	DF	12°	CCW	K11802	X6942
Witte Engine	XHD-2192B	XHD-1	DF	12°	CCW	K11802	X6942
Wisconsin Motors	XH-2207	XHG-4	SF	23°	CW	K9358	X5996
D.W.Onan	XH-2208	XHG-2	SF	25°	CCW	K9358	X5996
Minneapolis-Moline	XHD-2213	XHD-6	SF	52°	CCW	K11802	X6942
Standard Service Sta.	XHD-2214	XHD-4	SF	15°	CCW	K11802	X6942
JI. Case	XH-2239	XHG-4	SF	15 °	CW	K9358	X5996
Lauson	XH-2256	XH-1	DF	10°	CCW	K11802	X6942
Lauson	XH-2256B	XH-1	DF	10°	CCW	K11802	X6942
Lufkin F & M	XHD-2263	XHD-2	HF	35°	CW	K11802	X6942
John Deere	XH-2279	XHG-4	SF	15°	CW	K9358	X5996
Kermath	XH-2286	XH-1	SF	20°	CW	K9358	X5996
Lufkin F & M	XH-2289	XHD-2	SF	35°	CW	K11802	X6942
Waukesha Motor	XHD-2291	XHD-6	SF	50°	CW	K11802	X6942
Hercules Motors	XHD-2301	XHD-4	SF	21 °	CW	K11802	X6942
Lvcomlnq Spencer	XH-2302	XHG-2	SF	30°	CW	K9358	X5996
Buda	XHD-2358	XHD-6	SF	52°	CW	K11802	X6942
Lycoming	XH-2373	XHG-4	SF	36°	CW	K11802	X6942
Kermath MfQ.	XH-2392	XH-2	SF	10°	CW	K9358	X5996
NordberQ	XH-2403B	XH4-2	SF	15°	CCW	K11802	X6942
Nordbera	XH-2412	XH-1	SF	15°	CCW	K11802	X6942
Kohler	XH-2414	XHG-4	SF	20°	CW	K11802	X6942
Caterpillar	XH-2450B	XHG-2	HFYM	30°	CCW	K11802	X6942
Wisconsin	XH-2477B	XH-1	WF	13°	CW	K11802	X6942
Kohler	XH-2485	XHG-2	SF	20°	CW	K11802	X6942
Fairbanks Morse	XH-2497.	XH-1	HF	17°	CW	K11802	X6942
Standard Service Sta.	XH-2500	XHG-4	SF	30°	CW	K9358	X5996
Wisconsin	XH-2504	XH-1	WF	20°	CW	K11802	X6942
Waukesha	XHD-2520	XHD-1	SF	30°	CW	K11802	X6942
Caterpillar	XH-2522B	XH-2	SFYM		CW	K11802	X6942
Wisconsin	XH-2523	XH-1	SF	20°	CW	K11802	X6942
Fairbanks Morse	XH-2525	XH-1	HF	15°	CCW	K11802	X6942
Wisconsin	XH-2531 B	XH-2D	SF	22°	CW	K11802	X6942
Gravely	XH-2533	XH-1	HB	10°	CW	K11802	X6942
Caterpillar	XH-2541C	XH-2	HF	15°	CW	K11802	X6942
Palmer Engine	XH-2593	XH-1	LB	30°	CCW	K11802	X6942
Standard Service Sta.	XHD-2600	XHD-4	SF	30°	CW	K11802	X6942
Standard Service Sta.	XHD-2700	XHD-4	HB	30°	CW	K11802	X6942
Standard Service Sta.	XHD-2800	XHD-6	SF	45°	CW	K11802	X6942
Standard Service Sta.	XHD-2900	XHD-6	HB	45°	CW	K11802	X6942
Standard Service Sta.	XH-3000	XHG-4	SF	30°	CCW	K935J~	X5996
Standard Service Sta.	XHD-3100	XHD-4	SF	30°	(_CW	K11802._	J(6942
Standard Service Sta.	XHD-3200	XHD-4	HB	30°	CCW	K11802	X6942
Standard Service Sta.	XHD-3300	XHD-6	HB	45°	CCW	K11802	_X~94j_
Standard Service Sta.	XHD-3400	XHD-6	SF	45°	CW	K11802	X6942

*When installing an X5700B Coil to replace an X5700 or X6762 Coil we recommend using an X6916 Condenser and X6924 Clamp in place of the X5614 Condenser

tCode For Type of Mounting LB-Low Base, HB-High Base, HF-Horizontal Flange, SF-S.A.E. Flange, WF-Small Flange, OF-Double Slotted Flange, VM-Mounted Vertically

TABLE OF VARIABLE PARTS

Condenser	Coil *See Note	Distributor Cap	Distributor Rotor	Magnet Rotor	Main Housing	Impulse Coupling Unit	Drive Cup	Gear	Specification
X6916	X5700B	X6533	None	Y7569	X7277	X7634	7632	7646	XH-2116
X6916	_X6936	X5777	X9564	Y6911	X6950	X5982	2040	4467	XHD-2134
X5614	X5700B	X7064	X9564	Y5710	X6195	X6458	2040	7525	XH-2138
X5614	X5700B	X5770	X5531	Y5594	X6158	X6259	1657		XH-2148
X6916	X5700B	X5777	X9564	Y5710	X6073	X6258	1657		XH-2164
X5614	X7886B	X5776	X9564	Y7757	X7754	X6252	1657		XH-2168
X5614	X7886B	X5777	X9564	Y7836	X7835	X6264	1806B		XH-2175
X6916	X6936B	X9213	None	Y8538	X8540	X9367	8536		XHD-2192
X6916	X6936B	X9213	None	Y8538	X8540	X9367	8536		XHD-2192B
X5614	X5700B	X5777	X9564	Y5710	X6195	X9366	9352	6504	XH-2207
X5614	X5700B	X5776	X9564	Y5946	X6195	X8501	2040		XH-2208
X6916	X6936B	X5897	X5787	Y6931	X6950	X8557	8556		XHD-2213
X6916	X6936B	X5777	X9564	Y6912	X6950	X8568	5821		XHD-2214
X5614	X5700B	X5777	X9564	Y5710	X6195	X6351	6349		XH-2239
X6916	X5700B	X6533	None	Y8538	X8785	X8818	8780	9070	XH-2256
X6916	X5700B	X6533	None	Y8538	X8785	X8818	8780	9070	XH-2256B
X6916	X6936B	X9532	X9564	Y8748	X8747	X7606	2061 A		XHD-2263
X5614	X5700B	X5777	X9564	Y5710	X6195	X6260	2061 A		XH-2279
X5614	X5700B	X6533	None	Y7569	X7262	X9647	2061 A		XH-2286
X6916	X6936B	X9532	X9564	Y8748	X6950	X7606	2061 A		XH-2289
X6916	X6936B	X5897	X5787	Y6913	X6950	X9663	7369	8887	XHD-2291
X6916	X7886B	X5777	X9564	Y6911	X9022	X8960	1806B		XHD-2301
X5614	X5700B	X9348	X9564	Y5710	X6195	X6516	2061 A	9482	XH-2302
X6916	X6936	X9172	X5787	Y6913	X6950	X7368	7369		XHD-2358
X6916	X5700B	X5777	X9564	Y5710	X6195	X9924	2061 A	9482	XH-2373
X5614	X5700B	X5770	X5787	Y5761	X6170	X9645	2061 A		XH-2392
X6916	X5700B	X9670	X5531	Y9661	X6150	X9658	9667		XH-2403B
X6916	X5700B	X6533	None	Y8538	X7262	X8902	2061 A		XH-2412
X6916	X5700B	X5777	X9564	Y7510	X5705	X6513	2061 A	9071	XH-2414
X6916	X5700B	X9975	X9974	Y5946	X11231	X11311	9997		XH-2450B
X6916	X5700B	X6533	None	Y7569	X7265	P<11129	2040	*2273 t 11 031	XH-2477B-
X6916	X5700B	X11640	X5713	Y5944	X6195	X7412	2061 A	9071	XH-2485
X6916	X5700B	X5704	None	Y7569	X11586	X11531	9352		XH-2497
X5614	X5700B	X5777	X9564	Y5710	X6195	X6636	X6634		XH-2500
X6916	X5700B	X6533	None	Y7569	X7265	X11475	11472	7545	XH-2504
X6916	X6936B	X6533	None	Y7569	X8624	X7606	2061 A		XHD-2520
X6916	X5700B	X11533'	X11490	Y11495	X11766	None	None		XH-2522B
X6916	X5700B	X6533	None	Y8538	X7262	X11572	11641	11612	XH-2523
X6916	X5700B	X5704	None	Y8538	X11586	X11601	11598		XH-2525
X6916	X11600	X7173	None	Y7569	X6169	X7412	2061 A	**7057 +11722	XH-2531 B
X6916	X5700B	X6533	None	Y7569	X11656	X7445B	7446		XH-2533
X6916	X5700B	X11771	X11490	Y11758	X11779	X12165	11769		XH-2541C
X6916	X5700B	X6533	None	Y8538	X7260	X12041	12040		XH-2_i93
X6916	X6936B	X5777	X9564	Y6911	X6950	X7921	X6634		XHD-2600
X6916	X6936B	X5777	X9564	Y6911	X6951	X7917	1657		XHD-2700
X6916	X6936	X5897	X5787	Y6913	X6950	X6943	X6954		XHD-2800
X6916	X6936	X5897	X5787	Y6913	X6951	X6945	6953		XHD-2900
X5614	X5700B	X5777	X9564	Y5758	X6195	X6637	X6635		XH-3000
X6916	X6936B	X5777	X9564	Y6912	X6950	X7922	X6635		XHD-3100
X6916	X6936B	X5777	X9564	Y6912	X6951	X7918	1657		XHD-3200
X6916	X6936B	X5897	X5787	Y6931	X6951	X6946	6953		XHD-3300
X6916	X6936B	X5897	X5787	Y6931	X6950	X6947	X6955		XHD-3400

* Use Gear No_ 2273 on Model ABN & AKN Engines. t Use on Model ACN & BKN Engines. ** Use on TE & TF Engines + Use on Model TH Engine.

WICO

XH-XHD-XHE MAGNETO

REPLACEMENT

INFORMATION

WICO ELECTRIC COMPANY

A DIVISION OF GLOBE-UNION INC.

WEST SPRINGFIELD, MASSACHUSETTS

FILE: INSTALLATION INFORMATION SECTION - REPLACES ORIGINAL

FORM 5-588 OCTOBER, 1959 PRINTED IN U.S.A.

WICO INSTALLATION INFORMATION

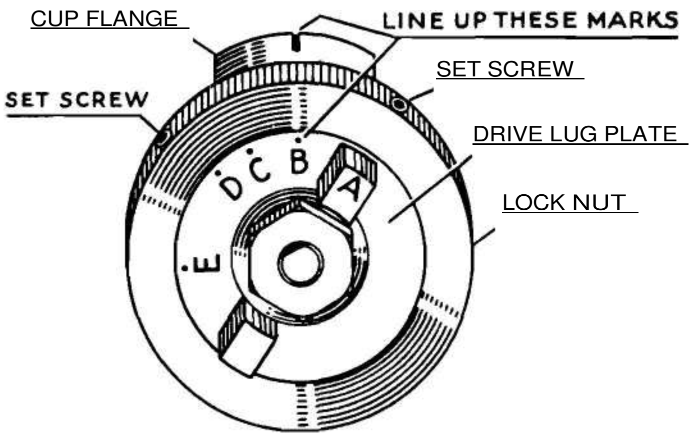
ADJUSTABLE IMPULSE COUPLING UNITS

The Wico adjustable coupling for flange mounted magnetos was developed to reduce the number of different models stocked by dealers. The use of this coupling provides a unit which can be easily set to fit the many drive lug angles used by various engine manufacturers. When setting the drive lug plate it is not necessary to remove the coupling from the magneto, nor does it involve the purchase of expensive tools.

The most common Wico specifications are the standard four cylinder flange mounted XH-2500 and XH-3000. The new line of heavy duty magnetos include the four and six cylinder Flange mounted XHD-2600, XHD-3100, XHD-2800 and XHD-3400.

INSTRUCTIONS FOR DRIVE LUG SETTINGS Wico

XH-4 & XHD-4 Magnetos

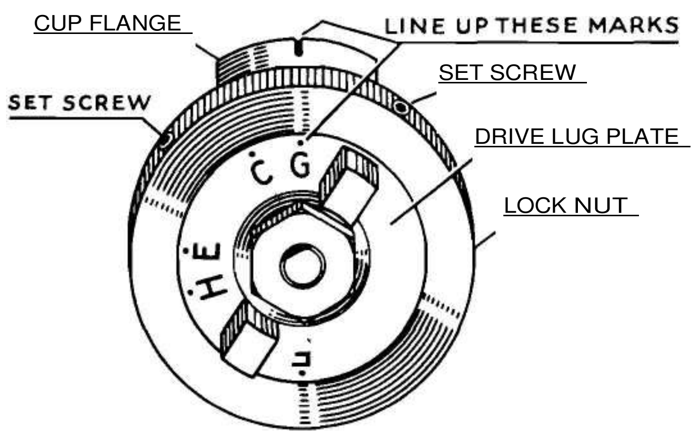


To adjust the drive lug setting loosen the two number 10 set screws and loosen the lock nut two complete turns, using Wico Tool No. S-10164. It may be necessary to hold the magneto rotor shaft from turning by inserting Tool No. S-10204 between the driven flange and the two bottom stop plate screws. Push the lock nut down until the lug plate can be turned. The lug plates are marked with settings A through E for ease in adjustment.

Line up the desired setting with the line on the cup flange. Tighten the lock nut as tight as possible and tighten the set screws. It is not necessary to loosen the shaft nut or remove the impulse to make the above adjustment. illustration shows a "8" setting.

INSTRUCTIONS FOR .DRIVE LUG SETTINGS Wico

XHD-6 Magneto



To adjust the drive lug setting loosen the two number 10 set screws and loosen the lock nut two complete turns, using Wico Tool No. S-10164. It may be necessary to hold the magneto rotor shaft from turning by inserting Tool No. S-10204 between the driven flange and the two bottom stop plate screws. Push the lock nut down until the lug plate can be turned. The lug plate is marked with settings C, E, F, G, and H.

Line up the desired setting with the line on the cup flange. Tighten the lock nut as tight as possible and tighten the set screws. It is not necessary to loosen the shaft nut or remove the impulse to make the above adjustment. Illustration shows a "G" setting.

1. The impulse lock nut ring must be tightened on every magneto. As this is a universal magneto subject to change before sale, no attempt to tighten the lock ring was made at the factory.

2. The serrations on the lug plate and the cup must be meshed before tightening the lock ring. Position of serrations can be seen through the wrench hole in the rim of the lock nut ring.

3. The two set screws located in the rim of the lock nut ring must be tightened on every magneto before sale .

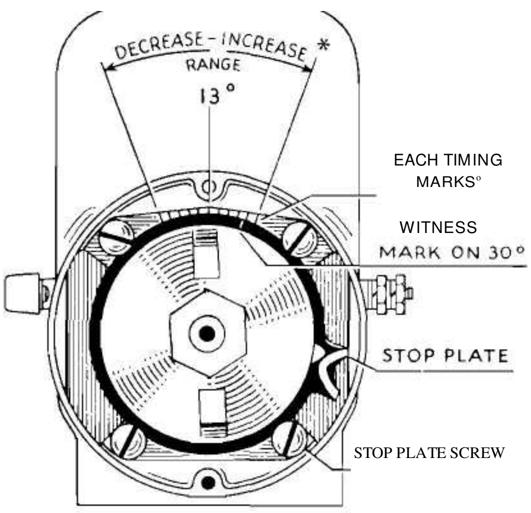
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WICO INSTALLATION INFORMATION

INSTRUCTIONS FOR CHANGING LAG ANGLE

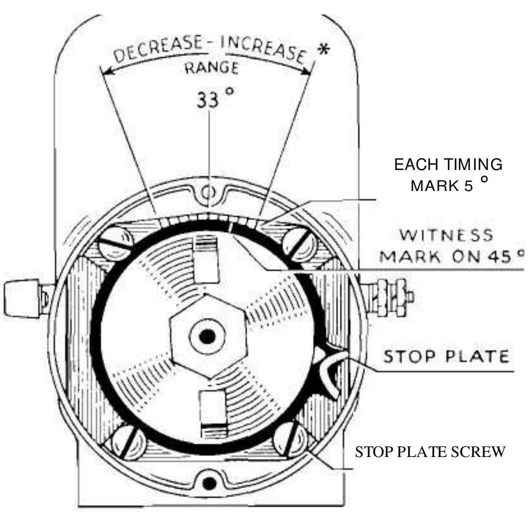
The reference to impulse lag angle, in the preceding tables, refers to the amount of retard in degrees from the position of advance spark. Lag angle is expressed in terms of magneto degrees and will differ from that shown on engine specifications depending on the ratio of engine revolutions to magneto revolutions obtained from magneto drive gears.

On Wico magnetos, the amount of impulse lag is determined by the position of an impulse stop plate. This plate has a witness mark which is aligned with corresponding markings on the main housing of the magneto. The position of the impulse stop plate is maintained by four stop plate screws and can be easily changed to provide any desired lag angle.



The impulse lag on many of the Standard XHG-4 Service Specifications and all of the heavy duty XHD-4 Standard Service Specifications are set at the factory for 30°.

To change the lag angle loosen the four stop plate screws shown in the sketch and move the impulse stop group in the direction outlined. If the witness mark on the impulse stop plate were lined up with the center timing mark on the magneto housing the lag angle or impulse range would be 13°. 1. On XHD and XHE "(units the timing mark would represent 33°. The marks on the housing are spaced 5° apart 50 the movement of the witness mark on the impulse stop plate from one timing mark to the next changes the impulse range by 5°.



Before installing the magneto, hand impulse the unit. Be sure to have it in the position in which it will be mounted. Particular care must be taken when the magneto is to be mounted upside down. Often the impulse stop plate will have to be turned 1f2 turn so the stop will catch the pawl and impulse the magneto.

*Impulse range is increased and decreased in the directions shown when the magneto is run counter-clockwise. Reverse directions for a counterclock magneto.

FOOTNOTE REFERENCES TO KITS AND XHE MAGNETOS

KIT-Reference in the footnote column of this booklet to K12042 indicates that the kit can be used in place of another magneto. Instructions for adapting the magneto to a particular application are included in the kit.

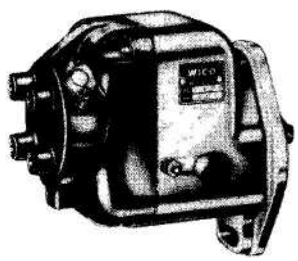
XHE-To adapt an XHE magneto to an engine, the impulse may have to be changed to agree with the angle in the "Impulse Required" column of the installation information. After the impulse is checked, the unit is ready for installation on the engine.

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WICO INSTALLATION INFORMATION

GENERAL DESCRIPTION OF WICO MODEL XH MAGNETOS

The Wico line of outside magnetos includes several models designed for gasoline engines - from one to six cylinders. These magnetos are available with various base or flange mountings for light, medium and heavy duty performance ... and are specified as original factory equipment by leading engine builders for use on road building, construction, agricultural, oil field and general industrial equipment.



MODEL XH AND XHG

For small and medium size engines operating in intermittent service or as auxiliary or construction units. Alnico type magneto rotor delivers 15 kilovolts at starting speeds and 18 kilovolts at 1000 RPM. Supplied in 1, 2, 4, and 6 cylinder base and flange mountings. Excellent impulse design, high quality contact points, and moisture-proof coils and condensers all help to provide the user with an outstanding magneto.



MODEL XHD

For medium and large engines operating in continuous service. Coils are moisture proof with molded insulation. Contacts are 3-16 inch tungsten for long wearing qualities. Condensers are large and hermetically sealed. Alnico 6 magnetic rotor delivers 17 kilovolts at starting speeds and 24 kilovolts at 1000 RPM. Supplied in 1, 2, 4, and 6 cylinder base and SAE Flange models.



MODEL XHE

Wico's Model XHE Magneto can be depended on to give carefree, continuous service on high compression engines, even when operated on dry fuel! Because only one oil-filled coil is needed cost is reduced, yet the output of this unit is more than enough to meet even the toughest requirements.

WICO INSTALLATION INFORMATION

MANUFACTURER Tractors - Engines Power Units	RECOMMENDED REPLACEMENT MAGNETO Specifications	Type	Mounting	Rotation	Impulse Lag Supplied	Change to Lag Required	Floats Couplings and Drive Gears	FOOTNOTES
ALLIS-CHALMERS MFG. CO. Engine Model 18-30 20-30 AC (20-35)	XH-522	XHG-4	HB	CCW	35°	35°	–	
20-35	XHD-3200	XHD-4	HB	CCW	30°	25°	M23X-Roat	
A	XH-633	XHG-4	SF	CCW	20°	30°	–	
B,BC,BE,C,CE,E,M,R,U,UC, UM, W, WD, WM, (Industrial) IU	XH-1023	XHG-4	SF	CW	20°	30°	–	See also Kit K12042
BE, U, W	XHD-1992	XHD-4	SF	CW	35°	30°	–	--
E	XHD-2214	XHD-4	SF-~	~CCW	15°	3(r°	–	
K	XHD-3100	XHD-4	SF	CCW	30°	30°	–	
K, KO, WK, WKO	XHD-3200	XHD-4	HB ~	CCW	30°	30°	–	
L	XHD-1784	XHD-6	SF	CW	52°	45°	–	See also XHE-2611
L	XHD-2900	XHD-6	HB	CW	45°	45°	–	See also XHE-2623
M, R, U, UC, UM, M, WM	XH-894	XHG-4	SF	CW	30°	30°	–	See also Kit K12042
M, U, UC, UM, W (Early)	XH-184	XHG-4	HB	CW	30°	25°	M-23X-Roat	
Combine TH	XH-522	XHG-4	HB	CCW	35°	35°	–	
Power Grader 12,14	XH-926	XH-2	-~-- SF	1------- - CW	17°	35°	---~------- –	
WD Tractor	XH-1023	XHG-4	SF	CW	20°	30°	–	See also Kit K12042
AMERICAN FARM MACH. CORP. Standard Twin	XH-32	XH-2	LB	CCW	10°	10°	–	
Viking Twin	XH-11	XHG-2	LB	CCW	10°	10°	–	
Walsh, Viking, Kincade	XH-10	XH-1	LB	CCW	10°	10°	–	
BUDA Engine Model 6B230,6B273	XH-1733	XHG-6	F	CW	52°	52°	–	Use XHD-1835 or XHE-2613 for heavy duty applications
6B230,6B273	XHD-2358	XHD-6	SF	CW	52°	52°	–	Moisture resistant
4B153,4B182	XH-1714 or XH-1992	XHG-4 XHD-4	SF SF	CW CW	35° 35°	*35°*	–	See also Kit K12042
B4223, Diesel Starting Engine	XH-1992	XHG-4	SF	CW	35°	25°	–	
BA6, BM386, BUS, BW6, DSG6, GF638, H260, H298, H326, HS6, J214, JG1335, JH6, JK6, JKT, JL 1375, JV6, K, K325, K369, K393, K428, KM393, KM428, KM639, L451, L468, L504, L594, LM525, LU6, P1897, SG6	XHD-2900	XHD-6	HB	CW	45°	40°	–	Can also use XHE-2623
BBU, HTU, JH4, H887, VTU, XBU,XTU, XT381, YBU, YTU	XHD-2700	XHD-4	HB	CW	30°	35°	1654 - Root	
BBU, JH4, VBU, VTU, XTU, YBU, YTU	XHD-2700	XHD-4	HB	CW	30°	35°	–	
BM38 BUS, DSG6, DW6, GF638, J214, JG1335, JH6, JK6, JV6, K325, K369, K393 H260, H298 - Also HM, HP H326, HS6 –	XHD-2900	XHD-6	HB	CW	45°	35°	1654 - Root	Can also use XHE-2623
BTH, BTU, DTU, EBU, ETU, FR, FTU, FV4, H173, H199, H205, H217, HM205, HM217, HP173, HP199, HP205, HP209, HP217, HTU, JH4, JK4, H877, JU4, JY4, KBU, KTU, VBU, WTH, WTU, XT381, XTU, YBU, YTU BTH, BTU, DTU, EBU, ET350,	XH-184	XHG-4	HB	CW	30°	25°	1654, M23X - Roots	